

# THE STORY OF LIP READING

By  
FRED DELAND

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DeLand

The story of lip-reading, its  
genesis and development.

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# THE STORY OF LIP-READING



# THE STORY OF LIP-READING ITS GENESIS AND DEVELOPMENT

*By*

FRED DeLAND

*Superintendent of the Volta Bureau*

1914-1922

Revised and completed by

Harriet Andrews Montague

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Headquarters: The Volta Bureau, Washington, D.C.



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# Dedication

During the years in which Fred DeLand was Superintendent of the Volta Bureau he replied to thousands of letters asking for information about lip-reading. The writers were often depressed and discouraged, and his answers brought them new hope.

His book, *The Story of Lip-Reading: Its Genesis and Development*, brings together the scattered bits of legend and history that reveal the growth of this practical art. He wrote it because of his deep sympathy for those whom deafness had isolated and his hope of making their cause better known; but funds for its publication were not available, and it lay untouched for eight years.

Now, revised in accordance with the development that has taken place since its completion, it is offered to the public in memory of its author, a man who demanded little of life except the opportunity to serve.

CAROLINE C. K. PORTER.

(Mrs. Nathan Todd Porter, Jr.)





## Preface

This book, written by Fred DeLand and later revised and completed by Harriett Montague, provides a comprehensive view of the historical developments of the use of lipreading by schools and hearing societies over the years. An attempt was made to reach back as far as historical records would allow, to bring together the salient factors that enhanced or impeded development. In accomplishing this, the writers have provided an explanation of the attitudes of society toward the hearing handicapped in general. The book also gives one a notion of the struggle involved in establishing the oral method of instructing and communicating with the deaf in Europe and in the United States.

*The Story of Lip-Reading* provides a frame of reference for one of the very important methods employed in aural rehabilitation. It was not meant to be a book used in the planning of rehabilitative sessions, nor was it meant to be a criticism of lipreading methods or research. Rather, it was meant to be a record of events in the development of lipreading that have transpired from 1500 A.D. to the time of its publication in 1931.

Certainly those who are specialized, or are in the process of specializing, in the areas of Rehabilitative Audiology or of Education of the Deaf will find this historical account of lipreading a most enlightening and useful one.



## **An Introduction to the Second Printing**

Lipreading has been taught formally for centuries and probably has been learned informally since man has used speech as a method of communicating. Frequently there are those who do a superior job of lipreading, without having had the advantage of formal training. For this we are grateful. There are, however, many who make excellent progress as a result of formal training. It is this fact that serves to encourage those who assume responsibility for the habilitation, or rehabilitation, of the acoustically handicapped.

In *The Story of Lip-Reading*, first published in 1931, DeLand made a substantial contribution by revealing the important events of history, in Europe and America, that shed light upon the development of lipreading. It becomes quite obvious to the reader that early developments in lipreading were interwoven with the education of the deaf. And today, in modern training programs for educators of the deaf and for speech pathologists and audiologists, one finds that the theories and methods of lipreading are being offered. However, lipreading constitutes but one facet of the multifaceted approach currently employed with the hearing handicapped in the attempt to assist them in the process of oral communication. As an academic topic, it is frequently offered along with auditory training, speech conservation, language training, and speech rehabilitation. As a service, it is offered in Hearing Centers throughout the United States. The results of the Downs survey show it to be offered in hearing centers sponsored by (1) private agencies 100 per cent of the time, (2) public agencies 88.9 per cent of the time, (3) state agencies 60 per cent of the time, (4) federal agencies 82.4 per cent of the time, (5) hearing societies 100 per cent of

the time, (6) medical schools or hospitals 89.6 per cent of the time, and (7) university centers 10 per cent of the time.<sup>1</sup> In view of these data, it is clearly evident that lipreading has found its way into modern programs of rehabilitation and training. In other words, the rehabilitative audiologist sees it as one of the important treatment approaches.

## Methods

DeLand points out very well the origin and development of methods of teaching lipreading that range from the highly analytical to the more synthetic ones. It would be hard to deny the inherent worth of any of the methods, as each seems to have its group of followers who can point to successful employment of them. It is also of interest to note that there has been very little that is new added to the early methods developed by Brauckmann, Bruhn, Nitchie, and the Kinzies. More extensive use of motion picture film, however, has come about over the past thirty years or so, and can be viewed as an advancement for purposes of both training and research.

## Tests

There has been a continuing interest on the part of a few persons to measure how well, or how poorly, people are able to lipread. This has led to the development of tests of lipreading. In the main, these tests are filmed and are available for general usage. While the reliability of these tests is not difficult to determine, it is still quite another matter to establish their validity. Although this is a continuing concern among those who contemplate seriously the measurement of lipreading performance, relative measurements are attainable.

## Need for Research

Even though rehabilitative audiologists and teachers of the deaf are successful in teaching lipreading to many, there is a great deal that is still unknown about the lipreading process. Many interested persons have researched various aspects of the code and the speaker as they contribute to visual intelligibility. Still others have examined the channel and the receiver,

<sup>1</sup> O'Neill, J. J., H. J. Oyer, *Applied Audiometry*. New York: Dodd, Mead Ind., (1966), p. 341.



in hopes of learning more truth about factors contributing to success and failure in the task. But, despite the amount of energy that has been directed toward exploring the mysteries of lipreading, woefully little can be said about the process that is backed by scientific fact. Therefore a great deal more research attention will have to be directed toward exploring the complexities that characterize this form of human behavior. Without this, we will continue to be in the position of presenting lipreading to the hearing handicapped on the basis of best guesses and hunches, rather than on the basis of facts. The hope is that through the use of modern technology, more refined measurements will be made that will contribute to greater understanding of the lipreading process during the next few decades.

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June 1968



# THE STORY OF LIP-READING

## Its Genesis and Development

### CHAPTER I

#### DARKNESS

Lip-reading is far from being a modern invention. It was practiced as early as 1500, and probably before that time. Both hard of hearing adults and congenitally deaf children demonstrated, here and there, in several European countries, extraordinary ability to "read on the lips," but they were not specifically taught this art, which was considered a more or less miraculous endowment appertaining to the "deaf and dumb." So far as we have any knowledge, deaf persons were not taught anything worth mentioning until the almost legendary Ponce de Leon undertook their education in Spain in the sixteenth century.

Many old books, even those reaching back into the farthest shadows of antiquity, contain references to deafness, but such is the nature of this infirmity, in that it cuts living men away from contact with other living men, it has given rise to curious misapprehensions, which have led to other misapprehensions, so that

what history we have of the dark ages of the deaf is a chaos of tragedy and nonsense.

Some of the errors which persisted for centuries arose from mistaken ideas as to the "dumbness" which was the fate of the untaught deaf. Even the wisest men believed that dumbness was a disease in itself, due to some obstacle that interfered with the movement of the tongue. This idea was in vogue in some parts of the world until very recently, and it is possible that there are still midwives who regard it as one of their chief duties to run a lacerating finger under the baby's tongue and sever the ligament, so the child may not be dumb.

Even when it was recognized that dumbness was associated with deafness, the two defects were still regarded as separate diseases, which occurred simultaneously by reason of some sympathy between the nerves of hearing and of speech. The confusion between the terms "deaf" and "dumb," therefore, was so great that, in ancient writings, when a "deaf-mute" is mentioned, he is usually spoken of merely as a *dumb* person. In the many stories of "deaf and dumb" persons who were healed by miracles, it is always the gift of speech which is instantaneously restored, and educators of the deaf have argued over some of these stories, in the effort to decide whether they were cases of aphasia or early instances of articulation teaching.

Then, too, the Greek word for *speechless* and that for *senseless* were alike, and they were often mixed, especially by the early translators. Through such errors some real harm was done, and this was greatly exaggerated by the historians of the deaf, who dilated upon



the dreadful penalties inflicted on helpless deaf persons because of mistaken ideas in regard to them. It was believed that Aristotle had judged the deaf incapable of thought, that the Roman jurists had deprived them of all legal rights, and that St. Augustine had denied them eternal salvation. Many anathemas have been hurled at these celebrated scapegoats, particularly Aristotle.

When he said, "Those born deaf all become speechless. They have a voice but are destitute of speech," he was merely stating an obvious fact; but the passage was translated so as to imply that the deaf-born are imbecile. Because he styled the ear "the organ of instruction," and said that "of all the senses hearing contributes most to intelligence and knowledge," and because it was supposed to be the idea of Greek philosophers that thought could not be conceived except through the medium of articulate words, Aristotle was saddled with the responsibility of having kept the deaf in ignorance for nearly two thousand years.

His dictum "Let it be a law that nothing imperfect shall be brought up" was also held responsible for the alleged destruction of deaf-born children by the Greeks and Romans. In many of the older books on the education of the deaf, great indignation is expressed because "The Spartan law consigned them to the great pit in Taygetus, into which the deformed were cast as useless to the state," and "In Athens they were without pity put to death without a single voice being raised against the monstrous deed." It is true that Spartans exposed their weak and deformed infants, but there is nothing to prove that they destroyed children two or

three years old, and as deafness is not often recognized before that age, there is little chance that any otherwise perfect deaf children were thrown into pits. As for the Romans, if they had thrown their deaf babies into the Tiber, their legal minds would not have been so much exercised as they evidently were over the civic status of deaf adults.

The Justinian Code classified deaf persons with an infinity of detail. They were listed with idiots and spendthrifts in that they were not permitted to make wills nor become guardians. Yet the privilege of becoming a guardian was denied to others as well; to all women, except the mother or grandmother of the child, to minors, bishops, monks, and soldiers in active service. Persons born deaf and dumb could not make a will, but persons either deaf or dumb could make a will if able to write. The Roman law provided that persons who were "unable to manage their property owing to deafness, dumbness, blindness, or some serious chronic disease, must apply for and obtain a curator." The survival of this law of the guardianship of deaf persons persisted through French, German, and Spanish law, and may have caused some injustice, but the lengthy passages on deafness in the Pandects and Decrees of the Emperors show that the Roman jurists had given the deaf heavy consideration in the effort to be fair. The five classifications of deafness which they made have been so often referred to, and they reveal so perfectly the extent of knowledge of the deaf prevalent at that time, they are worth quoting in full.

“Maintaining the distinction between the deaf and dumb since the two defects are not always combined, we ordain (1) That if one is afflicted with both diseases at once, that is to say, if from natural causes he can neither hear nor speak, he shall neither make a will nor any form of bequest, nor shall he be allowed to grant freedom by manumission nor in any other way. And this decree is to be binding on both males and females. (2) But where in either male or female, the same condition has been brought about by a calamity, not from birth, voice and hearing having both been lost by subsequent disease, then in case such a one have received an education, we permit him to do of his own act all that in the previous case we prohibited. (3) But if this further misfortune, which so rarely occurs, is to be considered, we should allow a man who was only deaf, supposing the affliction to be from natural causes, to do everything of the nature of making a testamentary bequest, or granting freedom, for where nature has bestowed an articulate voice there is nothing to hinder him from doing as he wishes; for we know that certain jurisconsults have made a careful study of this, and have declared that there is no one who is altogether unable to hear if he is spoken to above the back of the head; which was the opinion of Jubentius Celsus. (4) But those who have lost their hearing by disease can do everything without hindrance. (5) Supposing, however, the ears are perfect, but though there is a voice the tongue is tied (although on this subject there is considerable difference of opinion among the old authors) yet supposing such a one to be well educated, there is nothing to prevent his doing anything of this nature, whether the misfortune be congenital or the result of disease, without distinction between males and females.”

There is nothing so very terrible about all this, except

the admission that no one as yet had taken the trouble to ascertain that those deaf from birth could be educated. The Romans were not legislating against deafness, but against lack of education.

As for St. Augustine, he was quoted and misquoted and interpolated until it was assumed that he had denied the dumb immortality. He was not responsible for the canon law by which the dumb were excluded from the privilege of celebrating mass. This law prevailed during the middle ages, because it was considered necessary that the words of the consecration of the Eucharist be pronounced in order that the transubstantiation be effected, but St. Augustine had nothing to do with it. During the course of a very mild argument with Julian upon the doctrine of original sin, St. Augustine wrote,

“For what fault is so great innocence sometimes born blind and sometimes deaf? A defect, moreover, which is a hindrance to faith itself, according to the Apostle who says, ‘So then faith cometh by hearing.’”

This simple remark has evoked torrents of eloquence, both lay and ecclesiastical. Every writer on the deaf from Lasso to Bulwer and from Bulwer to Thomas Arnold referred to it in one way or another, until, in 1912 the controversy was finally settled and everything made clear and plain by Dr. E. A. Fay, in the *American Annals of the Deaf*. He proved very conclusively that St. Augustine did not regard the deaf as spiritual pariahs, quoting, among other passages, a quaint argument which Augustine had with his friend Evodius as to the offspring of deaf parents,

"If a man and a woman of this kind were united in marriage and for any reason they were transferred to some solitary place, where, however, they might be able to live, if they should have a son who was not deaf, how would the latter speak with his parents?"

"How can you think that he would do otherwise than reply by gestures to the signs which his parents made to him? However, a small boy could not do even this; therefore my reasoning remains sound, for what does it matter, as he grows up whether he speaks or makes gestures, since both these pertain to the soul?"

Another favorite insult to deafness was the couplet of the Latin poet, Lucretius, who, quite innocently, aroused the ire of centuries of deaf persons by writing

"To instruct the deaf no art could ever reach  
No care improve them and no wisdom teach."

No one took the trouble to read the context and find out that he was merely referring to the obstinately and wilfully deaf, the same persons, in fact, who were implied by the Egyptian writer when he exclaimed, "There is no use wasting words upon the dumb."

The old books concerning the deaf make a great deal of this business of Augustine and of Aristotle and of Rome. The truth was, so little was known of deafness, so little was done for the deaf, their misfortune was accepted so implicitly as an act of God, to be offset only by a miracle, that nobody thought about trying to do anything for them in the way of education. All efforts in their behalf are summed up quite simply by the oft-quoted law-giver of Leviticus, who commanded, "Thou shalt not curse the deaf nor put a stumbling block be-



fore the blind," and there is room for speculation as to whether this reveals a warm humanity on his part or a sinister admission that his contemporaries were in the habit of doing these things.

Such ambiguous references constitute the only written knowledge we have of the deaf in early times. They indicate that the deaf were not only uneducated; they were considered incapable of being educated. The one thing that was done for them was a fantastic effort to cure their dumbness by an operation on the ligament of the tongue. Mediaeval physicians, following Galen, often performed this operation.

There are innumerable stories of the healing of deaf and dumb persons by miracles. Most of them follow the outlines of the very beautiful one related in St. Mark.

And they bring unto him one that was deaf, and had an impediment in his speech; and they beseech him to put his hand upon him.

And he took him aside from the multitude, and put his fingers into his ears, and he spit, and touched his tongue;

And looking up to heaven, he sighed, and saith unto him Ephphatha, that is, Be opened.

And straightway his ears were opened, and the string of his tongue was loosed, and he spake plain.

In the Talmud, is a story about the grandsons of the Rabbi Jochanan, son of Gudgada,

"And whenever the Rabbi went to his house of learning they followed him, and sat opposite to him when he expounded the law, and shook their heads intelligently and moved their lips, The Rabbi prayed for them.

They were healed of their infirmity and it was found that they had mastered the whole body of Talmudical learning."

And then we come to Herodotus and his beguiling tale of the deaf son of Croesus, King of Lydia.

"He was a worthy youth, whose only defect was that he was dumb. In the days of his prosperity Croesus had done the utmost he could for him, and among other plans which he had devised, had sent to Delphi to consult the Oracle on his behalf. The answer which he received from the Pythoness ran thus:

"Wide ruling Lydian, in thy wishes wild  
Ask not to hear the accents of thy child  
Far better were his silence for thy peace,  
And sad will be the day when that shall cease."

"Afterwards when the town Sardis was taken in the war, one of the Persians was just going to kill Croesus, not knowing who he was. Croesus saw the man coming, but under the pressure of his affliction did not care to avoid the blow, not minding whether or not he died beneath the stroke. Then this son of his, who was voiceless, beholding the Persian as he rushed toward Croesus, in the agony of his fear and grief burst into speech, and said: 'Man do not kill Croesus.' This was the first time that he had ever spoken a word, but afterwards he retained the power of speech for the remainder of his life."

The value of this tale lies in the simple statement, "Croesus had done the utmost he could for him." But it had its origin in the idea that dumbness was due to some obstruction which could be removed suddenly—in this case by the influence of excitement and fear.

The miracle performed by the Bishop of Beverly is described so minutely in the chronicles of the Venerable

Bede that eminent educators of the deaf have called it the first record of articulation teaching. Lifted from its context, it may sound that way, but considered as one among many chapters of miracles, it can only be described as an excellent story, which makes very good reading.

“In the beginninge of this kinges raigne, when bishoppe Eata was dead, John, famous for his integritie and puritie of lyfe, tooke the bishoppricke of Hagulstald uppon him, of whome his neare and familiar acquaintaunce were wonte to reporte many straunge miracles and vertues, wrought at diverse severall tymes; and specially amongst all other, Berethum, sometime his deacon, but now Abbot of the monastery called Inderwodde, a man woorthy of al reverance and credit for his truth, of the which I have thought good to comit one or two to your memories. There is a secret and solitary mansion place compassed about with a greate wood, and closed rounde with a decke, distant from Hagulstalde not paste a myle and a halfe, but divided with the river Tine, which runneth betwixte them both, having a church yard of sainte Michael the archangell, where this holy man was wont to sejourne and make his abode very often, as occasion and time served, with a fewe of his companions, to geve himselfe most earnestly to prayer and study, but specially in the time of Lent.

“And when at a certaine tyme (Lent being at hand) he came thither to abyde after his accustomed manner, he commanded those that were about him to seeke some poore begger, and impotent Lazar, whome he might have with him all the time of his continuaunce there, to extende his charitie and deale his almes unto him. There was in a towne not farre off, a younge man that was dumme, well knowen of the Bishopp (for he used to

come before him oftentimes to receive his almes) who was never able to speake so much as one worde. Besides, he hadd such an unseemely sore in his heade, that in the crowne and higher partes, there coulde not a heare take roote, only a fewe evill favored rough haire stode staring rounde about his temples. This impotent Lazar the bishopp commaunded to be brought thither, and a harbour to be made for him within the precinct of his house, where he might ordinarily every day receive his almes.

“And when one weeke of Lent was past, the next Sounday he willed the poore man to come into him; when he was come, he bydd him to put out his tounge and shew it unto him, and taking him by the chinne, made the signe of the holy crosse uppon his tounge; & when he had so signed and blessed it, he commaunded him to plucke it in againe, and speake saying, speake me one worde, say *gea, gea*, which in the English tounge is a worde of affirmation and consent in such signification as *yea, yea*. Incontinent the stringes of his tounge were loosed, and he said that which he was commaunded to say. The bishopp added certaine letters by name, and bid him say A; he said A; say B, he said B, and when he had said and recited after the bishopp the whole crosse rewe, he put unto him silliables and hole wordes to be pronounced, unto which when he answered in all pointes orderly, he commaunded him to speake longe sentences, and so he did: and ceased not all that day and night following, so longe as he could hold up his head from sleepe (as they make reporte that were present) to speake and declare his secret thoughtes and purposes, which before that day he could never utter to any man: in like manner as that longe lamed Lazar, who restored by the Apostles Peter and John, to the use of his legges agayne, stode upp and walked and entered into the temple with other walkinge and leaping and

praying God with much joy and myrthe, that he could now go uppon his legges, which benefit he had lacked for so longe time before.

“The bishopp also rejoycing that he had his speach againe, commaunded the phisician to take the sore of his head in cure. Which he did, and by helpe of the bishopps benediction and holy prayer, the skinne came againe, and haire grew so sightly to see as any other mans. So he that was before evill favoured, dumme, and a lothesome creature to looke to, was now made a hansome younge man, his countenance amyable and pleausaunt to beholde, his tounge ready and nimble to speake, his haire curled and faire to see. And so rejoycing for the recovery of his health, he returned home, notwithstanding the bishopp offered him lodging and gentle entertainment, amongst his owne familie.”

If this be articulation teaching, make the most of it. There is no harm in believing so if one chooses. The best foundation for such belief is in the fact that religious men, especially the monks of the Benedictine order, were among the first to treat the deaf as intelligent members of the human race, and the first to undertake their education. But, so far as we have any knowledge, they did not commence this work until the sixteenth century.

We are told that St. Francis de Sales was the first to admit a deaf-mute to communion. In 1604 he took into his house a youth, “whose good conduct and ingenuity, not less than his misfortune, had excited his interest and compassion,” and succeeded “with incredible labor,” in teaching his protégé the doctrines of the church, taught him to confess himself by signs, and admitted him to the communion, “which the youth never approached



without a respect and devotion that were highly edifying."

Saint Elizabeth healed several "deaf and dumb" persons. In 504, St. Severinus "healed Eululius, Bishop of Nevers, who had been for some time deaf and dumb." Saint Claire (1194-1253) is credited with the cure of Sister Christina, who "had been for a long space deaf of one ear. And she had taken all the advice she could, and could never cure it by medicine or physic; but as soon as St. Claire had made the sign of the cross on her head and had touched her ears, she heard full already."

There was a deaf saint, too, of uncertain time and origin. Romauld, son of Sergius, entered a monastery to do a thirty day penance for his father, who had slain an adversary in a duel. When the month was up, the son concluded to become a devotee, and remained in the monastery three years. Then he went to a wise hermit for further instruction. This hermit was in the habit of beating Romauld on the left side of his head. Finally, Romauld said gently, "Master, if you please, would you henceforth beat me on the right side, as I have lost the hearing of my left ear." Whether he became totally deaf or not is not recorded, but Romauld led so worthy a life that after his death he was canonized.

Along with all these stories, we find one stark sentence which indicates better than anything else the condition of the deaf through the middle ages, and the usual attitude toward them. This occurs in the brief biography of a little deaf girl, the daughter of Eleanor, Queen of England, and Henry III. Matthew Paris,



who wrote a history of England from the year 1235 to 1273, comments on her thus.

"About this time (1253) Eleanor, Queen of England, gave a daughter to the King at London, who was baptized by the archbishop and named Catherine because she drew her first breath on St. Catherine's day . . . . Near about the festival (1257) of the finding of the Holy Cross, died the King's daughter Catherine, who was dumb, and fit for nothing, though possessing great beauty."

### BIBLIOGRAPHY

- Arnold, Thomas. Education of Deaf-Mutes, London, 1888.
- Balfour, Charlotte. The Life and Legend of the Lady Sainte Clare, translated from the French of Brother Francis du Puis (1563) by Charlotte Balfour.
- Bede, Venerable. The Historie of the Church of England. Compiled by Venerable Bede, Englishman. Translated out of Latin into English by Thomas Stapleton, D. D. 1622.
- Bell, Alexander Graham. Fallacies Concerning the Deaf, An address delivered to the members of the Philosophical Society of Washington. Reprinted in the *American Annals of the Deaf and Dumb*, January, 1884.
- Butler, Alban. Lives of the Saints. Reprinted, 1913.
- Farrar, A. Introduction to Arnold's *Education of the Deaf*. London, 1901.
- Farrar, A. Historical Introduction to Bonet's *Simplification of the Letters of the Alphabet*, 1890.
- Farrar, A. St. John of Beverly, *Volta Review*, August, 1929.
- Fay, E. A. Deaf-Mutes. A contribution to Buck's Reference Handbook of the Medical Sciences, 1888.
- Fay, E. A. What Did St. Augustine Say? *American Annals of the Deaf*, January, 1912.
- Fay, E. A. What Did Lucretius Say? *American Annals of the Deaf*, March, 1912.
- Ferreri, G. The Deaf in Antiquity, *American Annals of the Deaf*, November, 1906.

- Ferreri, G. The Deaf in Latin Literature, translated by A. B. Fay, *American Annals of the Deaf*, May, 1907.
- Gaw, Albert C. The Legal Status of the Deaf. The Development of the Rights and Responsibilities of Deaf-mutes in the Laws of the Roman Empire, France, England, and America, 1907.
- Herodotus. "History," Book I. Conquest of Lydia.
- Montalembert, Count de. Life of Saint Elizabeth of Hungary.
- Ray, Luzern. Historical Sketch of the Instruction of the Deaf and Dumb Before the Time of De l'Epée, *American Annals of the Deaf and Dumb*, July, 1848.
- Paris, Matthew. English History From the Year 1235 to 1273. Translated from the Latin by the Rev. J. A. Giles, 1852.
- Peet, Harvey. Memoir on the Origin and Early History of the Art of Instructing the Deaf and Dumb, *American Annals of the Deaf and Dumb*. April, 1851.

## CHAPTER II

### TWILIGHT

And so we emerge from the uncertain realm of miracle and legend to the more or less stable ground of authenticated records. It is true that many of these records are exaggerated. They ascribe as miraculous powers to lip-readers and teachers of the deaf as the earlier historians ascribed to the saints, but nevertheless they indicate plainly that the deaf were being lifted out of the pit of ignorance which was darker and more tragic than any pit of Taygetus.

There are instances showing that the deaf themselves now and then struggled part way out of the darkness by their own efforts, or through the exercise of some exceptional talent. Several "deaf and dumb" persons became eminent painters. Pliny, in his "Natural History," tells of a deaf and dumb man, Q. Pedius, grandson of Consul Quintus Pedius, who was named in Caesar's will, co-heir with Augustus. "This young man, being a mute from birth, the orator Messala of whose family he was, through his grandmother, thought that he might be instructed in painting, of which also Augustus of sacred memory approved. The young man made great proficiency in that art."

There are several accounts of deaf painters, culmi-

nating in the most famous of them, Juan Fernandez Navarette, "*El Mudo*," who was born, of noble parents, in Spain in 1526. He lost his hearing when he was three years old, and formed the habit of expressing his ideas and desires by means of sketches. He showed so much talent that his father had him educated as a painter. He was invited to Madrid and enjoyed the special favor of King Phillip II. El Mudo travelled widely and became greatly celebrated. From his splendid coloring, he received the name of "the Spanish Titian." His pictures were bold and assured, and showed great feeling, and they commanded high prices. He painted portraits of the king and of court nobles, and many religious subjects, some of which still hang in the Escorial. He was "in an uncommon degree versed in sacred and profane history and mythology. He read and wrote, played at cards and expressed his meaning by signs with singular clearness to the admiration of all who conversed with him." Lupe de Vega said in his epitaph, "he painted no face that was dumb; and although mute himself, his breathing pencil lent to his canvas a voice more eloquent than many a speech."

There were some deaf poets, too. Pierre de Ronsard, who was hard of hearing, was a soldier and accomplished courtier. Born in 1524, he was the darling of four successive kings of France, and enjoyed the favor of Mary, Queen of Scots, and of Queen Elizabeth. He wrote some charming verse, which is still fresh and young today.

Joachim du Bellay, a friend and contemporary of Ronsard, was also hard of hearing and a poet. He had

a varied career, at different times studying law, serving as secretary to a cardinal uncle in Rome, and living a free life in Paris, where, with Pierre de Ronsard, he formed a group called the Pleiades, or seven stars of French poetry. He wrote a long hymn to Deafness addressed to his friend Ronsard. This poem was translated for an early number of the *Volta Review* by Miss Adelaide Stilwell.

“Whence comes this sorry evil which is called deafness?  
 Sorry only to the ignorant who fail to fortify their souls  
 With the divine reasonings of philosophy.

\* \* \* \*

If one is deaf and deprived by that defect  
 Of the pleasure derived through agreeable sounds,  
 He is as well prevented from feeling not a few times  
 The annoying discord of a wretched voice  
 A false musical instrument, the tempest's loud roar.

\* \* \* \*

And if he tastes not the fine flavor of good table-talk,  
 On the other hand he is not bored with the audacious  
 cackle

Of an ignorant preacher, or the poor argument of a  
 sorry Judge at the bar,  
 The babble of women, the prosiness of priests.

\* \* \* \*

Under such circumstances cannot one the better write  
 friendly letters  
 Discouraging thus with finer effect than by word of  
 mouth?

\* \* \* \*

There is even harmony in such a world  
 For those who have a ringing in the ear  
 Whence betimes they hear the roaring of a torrent  
 Or again the silvery voice of gently murmuring brook.

Thee, I salute, O Kind and Holy Deafness

\* \* \* \*

Be favorable to me, and if some might be angry  
Enviously wishing to outrage thy name,  
May they one day feel thy powerful deity  
Thus learning, even as I, what thou, Deafness, art in  
Truth."

Toward the end of the fifteenth century, we begin to find slightly contradictory, but still definite, reports which show that the Renaissance had extended its life-giving influence so far as to inspire widely scattered individuals with the idea of educating the deaf. Rudolph Agricola (1443-85), a learned Dutchman and Professor at Heidelberg, one of the most distinguished scholars of his time, tells us, without giving time or place, that he "saw what seemed to him to rise almost to the miraculous—a man deaf from his earliest years, and consequently mute, who nevertheless had so learned that he understood whatever another wrote, and himself also, even as any other that can speak, whatsoever was in his mind he could perfectly express by writing." Ludovic Vives, a learned Spaniard, who lived almost a hundred years later, doubts this statement of Agricola, and quotes Aristotle to the effect that "living things who are deprived of hearing are not capable of education."

A contemporary of Vives, however, Jerome Cardan, the Italian mathematician and physician, who lived from 1501 to 1576, shattered once for all the notion that the deaf are imbecile. Cardan had an inquisitive, restless, and penetrating genius, which led him into every field of learning, and his written works represent



the soundest knowledge of his time. He associated the study of psychology with that of physiology, especially in regard to the organs of the senses and their functions. In his book, *Paralipomenon*, he supports Agricola's statement in regard to the deaf, and announces that it is possible to "place a deaf-mute in a position to hear by reading, and to speak by writing; for his memory leads him to understand, by reflection, that *bread*, as written, signifies the thing which is eaten." In still another work, he urges the importance of teaching the deaf to read and write, and states that many abstract ideas can be explained to them by signs.

"And so deaf-mutes reverence and worship God, and since they have mental power there is nothing to prevent them from executing the more delicate works of art; and to live in greater self-respect . . . . And now in general to him who has mental power there is nothing whatever which seems so great as not to be achieved by mental effort."

These stirring words mark the boundary line between the dark ages of the deaf and the modern era. Successful efforts to instruct deaf children began to be made independently in several different countries, and through the seventeenth century works on the education of the deaf appeared, from time to time, in England, Spain, Belgium, and Holland.

To Spain, however, belongs the honor of producing the first teacher of the deaf. Pedro Ponce de Leon is a figure of romance, for all that we know of him comes to us at second hand, and some chroniclers have exaggerated his work until they make it read like a succes-



sion of exploits. Then, too, the youths he taught were of noble birth, and at least one of them was the heir to large estates, which, as some stories have it, he forfeited by being deaf, and regained through having been taught to speak by the earnest labors of Ponce de Leon.

All that we know positively of Ponce de Leon is that he was a monk of the Benedictine order, that he was the successful teacher of several deaf persons, that he died in 1584. He left a written account of his work, which was either misplaced or destroyed, for only a bare mention of it has come down to us. He is said to have been born in Valladolid in 1520. His family was one of the most ancient of Spain, "so noble and ancient" that "in the first class of grandees of Spain there are few houses that do not boast of containing among their illustrious ancestors some bearing the name of Ponce de Leon." Pedro studied at the University of Salamanca, and then became a monk in the monastery of San Benito at Sahagun. Afterwards, he went to that of San Salvador at Oña, where he appears to have remained throughout the rest of his life. He left a legal document dealing with the foundation of a chapel, which is dated August 24, 1578, and which gives an account of "monies" he had acquired by gifts and legacies, and by payments of pupils he had taught.

"I have had for my pupils, who were deaf and dumb from birth, sons of great lords and of notable people, whom I have taught to speak, read, write, and reckon; to pray, to assist at Mass, to know the doctrines of Christianity, and to know how to confess themselves by speech; I have taught them all this. Some attained to a knowledge of Latin: others, taught Latin and

Greek, acquired the knowledge of Italian. One who entered the priesthood and undertook a charge and a benefice of the Church, was also able to recite the canonical hours; and several others attained to know and understand natural philosophy and astrology. Another, heir to an estate and a marquisate, and led afterwards to embrace the military profession, learned, in addition to the knowledge above referred to, every kind of exercise, and became a noted horseman. Much more, my pupils studied history, and were able to trace the annals of their own country, and also those of other lands. Better still, they proved by the use they made of them, that they were possessed of the gifts which Aristotle had denied to them."

We do not know what led to Ponce's taking up the teaching of speech to the deaf, although there is a story that "one named Gaspard Burgos" had applied for admission to a monastery and been refused orders because he was a deaf-mute, and that Ponce de Leon instructed him and taught him to speak so that he could confess himself and qualify for admission as a convert.

Ponce's greatest success was with Francisco and Pedro de Velasco, brothers of the Constable of Castile. The oldest treatise which we have on the education of the deaf consists of a manuscript prepared by a legal friend of Ponce and of the noble house of Tobar to which his pupils belonged. It was written in the monastery at Oña in October, 1550, and its title explains that it was

"newly composed by the licentiate Lasso, addressed to the most illustrious Señor Don Francisco de Tobar, legitimate heir to the Marquisate of Berlanga, and eldest son of the house of Tobar, in which under a new

style and manner of speech is examined and founded on law how one dumb by nature, excluded in the institution of some *mayorazgos* (right of primogeniture) wherein the dumb are excluded, is capable, should he speak, of the right of succeeding in the *mayorazgo*, as though he had never been dumb. Herein is examined the great novelty of speech, which the same Don Francisco, who was dumb by nature, now enjoys, and to whom the work is addressed and how he is the first deaf-mute in the world who has spoken by the ingenuity of man. Some questions and historical matters and other admirable things which have occurred in the world are touched on, and the question of who is dumb by nature and who by accident is also discussed. Good heed is given to many doctors who have spoken on the subject, refuting the errors which jurists have held on this matter. It is a new and subtile work, as will appear by its perusal."

Lasso was possessed of an endless flow of words, and the lengthy title is indicative of the feast of language to which the reader is invited. The style is so redundant that reading it is a little like trying to read a treadmill, but after we have progressed through a vast number of references to all the wonderful things that have happened in the world, we are told that the work of teaching the dumb to speak is "so novel in its subtility, genius and industry, as to seem miraculous, since it exceeds all the other achievements of these and all other philosophers past and present." He remarks that it "must not be imputed to audacity" that he should venture to write "what up to now no doctor has read of or touched on," and adds that he does not wish to describe the "industry, solicitude and ingenuity that are

required to enable the dumb by nature to speak," since "the sole inventor of this art has it engraved and kept and reserved to himself; although he may publish it and make it manifest to all."

He pays tribute to the "diligence and brightness" of Fray Pedro Ponce de Leon, and assures Don Francisco that he can testify to having seen and heard "Don Pedro, your brother, singing the plain chaunt at a chorister's desk with a congregation of monks keeping time and tune; not that he was able to follow the tune and order of what was sung in that monastery . . . but when Don Pedro commenced to sing . . . the monks who were present and singing with him followed him, and assisted him to follow the tune and time, by which the music was kept in perfect order." Lasso adds the fervent hope that Ponce de Leon who has "made you and Don Pedro, your brother, speak" will "be able to subdue and force nature . . . so as to make you hear fully and perfectly as though you were not deaf."

The greater part of the tractate is devoted to arguing the question as to whether Don Francisco being "dumb by nature" and therefore by law excluded from the right of the *mayorazgo*, could nevertheless claim it in virtue of having been taught to speak. With great ingenuity and legal subtlety, Lasso proves that, from eight different points of view, Don Francisco's education has removed the cause by which the law has its "reason and intent" and that therefore this law must be considered abrogated. He adds that, in general, the deaf who have learned to speak should be allowed to celebrate mass.

Lasso was not the only one of Ponce de Leon's contemporaries who paid tribute to the latter's genius. Ambrosio de Morales, historiographer to Philip II, mentions Ponce de Leon as one of the most remarkable men of Spain because "he has taught the dumb to speak, by a perfect method, invented by himself." He mentions two brothers and a sister of the Constable of Castile, and a son of the Chief Justice of Aragon who were taught by Fray Pedro. He subjoins a description which was written by Don Pedro Velasco himself, in Latin, giving an account of the method which Ponce de Leon employed in teaching him:

"Your Grace knows that when I was a child I knew nothing like a stone (*ut lapis*) but I commenced to learn by first of all writing down the things which my master taught me; and afterwards I wrote down all the Spanish vowels in a book of mine which I had for the purpose. Then next, by the aid of God, I began to spell, and afterwards to pronounce with all the force I could, although much saliva came from me. After this I began to read histories, so that in ten years I had read the histories of the whole of the world; and then I learnt Latin."

One of King Philip's physicians, Covarrubias, wrote a long book on the philosophy of the Bible, with special reference to "natural and physical facts." He describes as "a wonderful thing" the work of Ponce de Leon in reversing the usual order of instruction and teaching those born deaf to speak "by no other device but that of teaching them first to write, pointing out by the finger the things to which the written characters correspond and then pronouncing them. And thus as we begin



by speech with those who hear, so do we as well by writing with those whose ears are closed."

There were still other glowing tributes to Fray Pedro's genius. Juan de Castaniza, general of the Order of St. Benedict in Spain, and chaplain to Phillip II, wrote a life of St. Benedict, in which he describes the virtues of Ponce de Leon, who, "by industry taught the dumb to speak, although the great philosopher Aristotle says that it is impossible . . . and what is more admirable is that those who are not able humanly to hear, he makes to hear, to speak, and learn the Latin language . . . to write and to paint and other things."

Cervantes himself, in one of his stories, speaks of a monk of the Order of St. Jerome, who from his youth devoted himself to the education of deaf mutes, "whom he had succeeded in some manner in making to hear and speak," but there is no evidence that he was talking about Ponce de Leon.

There is, of course, a great deal of colorful exaggeration in all these accounts. The novelty of Fray Pedro's undertaking fired the Spanish love of the picturesque, and, miracles being in the air at that time, it was easy to give his work the aroma of the miraculous. Nevertheless the results he obtained are sufficiently remarkable. Considering that he had to make his own method, and, in addition, had to contradict centuries of philosophical determinism in regard to the deaf, the importance of his accomplishments can hardly be overestimated.

Perhaps the most striking effect of his work in teaching the dumb to speak can be estimated by the report, published in 1599, of a meeting of physicians which

was held in Vienna in 1581, three years before his death:

"The most renowned surgeons assembled in consultation on the condition of a child of noble parents, which was mute and also deaf. They all agreed that the muteness was a consequence of the deafness, and that the treatment must be confined to the latter defect."

Ponce de Leon died in 1584. The register of his monastery contains the statement:

"Slept in the Lord, Brother Pedro Ponce, benefactor of this house, who amongst other virtues, which he possessed in a high degree, excelled chiefly in this, which is held in the greatest estimation by the whole world, to wit, teaching the dumb to speak."

#### BIBLIOGRAPHY

- Arnold, Thomas. Education of Deaf-Mutes, 1888.  
 De Haerne, D. El Mudo and El Sordillo, *American Annals of the Deaf*, July, 1881.  
 DeLand, Fred. Ponce de Leon and Bonet, *Volta Review*, July, 1920.  
 Farrar, A. Introduction to Arnold's *Education of the Deaf*, 1901.  
 Farrar, A. Historical Introduction to Bonet's *Simplification of the Letters of the Alphabet*, 1890.  
 Farrar, A. A Sixteenth Century Treatise, *Annals*, June, 1892.  
 Ferreri, G. The Deaf in Antiquity, *Annals*, November, 1906.  
 Ferreri, G. The Deaf in Latin Literature, *Annals*, May, 1907.  
 Morely, Henry. Life of Girolamo Cardano of Milan, Physician, 1852. (See also Jerome Cardan in "A History of Electricity from Antiquity to the Days of Benjamin Franklin," Park Benjamin, 1898.  
 Peet, Harvey. Memoir, *Annals*, April, 1851.  
 Northcote, James. Sketch of Navarette (El Mudo) *Annals III*, 191.  
 Ray, Luzerne. Historical Sketch, *Annals*, 1848.  
 Stilwell, Adelaide B. The Poet Among Princes, A Study of Ronsard, *Volta Review*, January, 1913.  
 Stilwell, Adelaide B. Joachim Du Bellay, *Volta Review*, March, 1914.  
 Stirling-Maxwell, William. Annals of the Artists of Spain, 1838.



## CHAPTER III

### DAWN

Toward the end of the sixteenth century and the beginning of the seventeenth, a number of books concerning the deaf were published, and teachers in different parts of Europe began independently to evolve methods of instruction. Again, Spain was first. *The Method of Teaching Deaf Mutes to Speak*, by Juan Pablo Bonet, which was published in Madrid in 1620, is the earliest text book on articulation teaching which has come down to us.

There is no doubt that Bonet was an independent and original thinker, and that the method he outlines was one which he himself had evolved, but because he followed closely in point of time after Ponce de Leon, and because he taught a member of the same family as that of the youths whom de Leon had instructed, he has been accused of plagiarizing de Leon and of refusing him proper credit. The fly leaf of his book bears a testimonial written by Fray Antonio Perez, Abbot of St. Martin at Madrid, who states that he has examined the book compiled by Bonet, and that its publication should "not only be permitted, but commanded and rewarded, because it deals in a careful and skilful manner with a

most important and difficult subject, and one much to be desired in our country of Spain, since our brother Pedro Ponce de Leon gave invention to this wonderful work of teaching the dumb to speak; who on this account is renowned both among natives and foreigners for his marvelous skill; yet who never thought of teaching it to another, although it is clear how much better it is to 'make' masters in a profession than to 'be' so; and therefore it appears to me that this work is the more worthy of publication."

Bonet's dedication to the King of Spain appears on the same page with this utterance, which he must therefore have acknowledged, yet nowhere in his book does he make the faintest reference to Ponce de Leon. Nor does he mention a contemporary, de Carrion, who, at one time or another, instructed the youth, Luis de Velasco, in whose education Bonet was interested. De Carrion also wrote an account of his work, and he makes no mention of either Ponce de Leon or Bonet. It has been necessary for historians to sift these diverse reports and make an effort to assign credit in right proportion. This is rendered the more difficult as still another author, an Englishman, Sir Kenelm Digby, has left us a highly colored account of the deaf young nobleman, Luis de Velasco.

The facts appear to be that Carrion acted as tutor to this youth for several years, and that Bonet, connected with the household of the Constable at that time, watching Carrion's work, and very probably overseeing it and assisting as he was able—for he was a busy man of

affairs, serving at court and often absent on commissions of state—became interested, and finally noted down the whole method in a book, which he published. The book shows too intimate a knowledge of the subject not to have been the outcome of actual experience, so, unless Bonet worked along with Carrion, he must have preceded him in the instruction of the talented Luis. He makes no claim to having been the young man's only teacher, but he apparently considers himself the originator of the method used.

A number of eminent writers, among them the celebrated Saint-Simon, refer to Carrion with unmeasured enthusiasm as a teacher of the deaf. Because of all this ambiguity, and because little is known of Bonet personally, it is difficult to speak with exactitude of his performances as a teacher, but his book stands by itself as a remarkable treatise on a subject which was then practically unknown. He displays so much intelligence in his grasp of essentials that some of his recommendations are descriptive of the common procedure of teachers of the deaf today.


Bonet was born at Jaca in Aragon in the latter part of the sixteenth century. Unlike the studious and cloistered Ponce de Leon, he was a travelled man of affairs. On the title page of his book he speaks of himself as "Confidential Servant of his Majesty, Attendant on the Person of the Captain-General of Artillery of Spain, and Secretary to the Constable of Castile." The work is dedicated to "His Majesty our Lord the King Don Philip III."

Deafness was evidently hereditary in the family of

the Constable of Castile. Luis de Velasco, who became deaf at the age of two, must have been a great-nephew of the two brothers who were taught by Ponce de Leon. Don Luis lived until 1664, and was made first Marquis of Fresno by King Philip IV, so he apparently outlived the prejudice against the deaf which was so much discussed in connection with his great uncle. A history of Spain written in 1712 says of Don Luis, "they call him Mute, since he was naturally destitute of the faculty of speech, which nevertheless the art of Ramirez de Carrion succeeded in restoring, who taught him to speak and express his thoughts."

In the prologue to his book, Bonet takes exclusive credit to himself for considering "with extreme care how to find a way by which intelligence might be brought to the mind, avoiding the barrier which could neither be broken down nor scaled, till I found at last a secret way of entrance, and a plain pathway." He adds that he was moved to this undertaking "by love and gratitude towards the house of my lord the Constable where at the present time a brother of his Excellency is afflicted in this manner . . . and by the immense labour expended by his mother, my lady the Duchess, in seeking out all possible remedies to supply the defect."

Bonet's book is absorbing. The first part, which deals with "The Simplification of the Letters of the Alphabet," is generally passed over briefly by reviewers, who hasten on to the second part, "The Method of Teaching Deaf-Mutes to Speak." Yet his treatment of the letters is very interesting, and his quaint effort to

tell all about each one from every point of view leads to the interpolation of unexpected bits of fancy. He explains the phonetic values of each letter, describes its articulation, and makes an effort to prove that the Roman alphabet is pictorial of the positions of the organs of speech. For instance, A “enjoys the priority over the other letters on account of being the most easily pronounced, and because it is the first sound used by man at his birth, and it is the initial of the name of the first man.” If turned on its side,  he explains, represents the free emission of breath from the open mouth, “the ends of the two lines meeting at a point, the throat, whence arises this voice.” B is supposed to represent the closed position of the lips in forming the sound—and so on.

He is pedantic and fond of displaying his learning, but his views of articulation are astonishingly correct, and his method of teaching is simple and practical. He understands the cause of “dumbness,” “speech itself being but the imitation of that which has been heard.” He insists upon the early teaching of speech “since the non-use of the tongue for many years is sufficient to prove an impediment.” He recommends the manipulation of a leather tongue, which the teacher can double up and curve with his hand, “so as not to keep putting the fingers into the mouth of the pupil.” Some of his remarks show an impressive grasp of the intricacies of language teaching. “Since verbs signify not things actually having existence but only actions, they must be taught by imitating these actions as closely as possible: as running, walking, laughing.” “The names of quali-

ties have to be taught, so as not merely to give the knowledge of the words, but also their meanings—as great, little, high, low, wide, narrow, long, short, cold, hot, clear, obscure, good, bad, heavy, and similar terms.”

There are remarkable suggestions for teaching differences and similarities of objects in respect to length, width, color, weight, etc. “In this lesson he ought to be well versed; and this can be easily accomplished, for it is the very threshold of reasoning; and he must learn that words are concepts by which he is to express what he thinks; and with this view he will have to be asked many questions about different things, some of them so similar as to demand feeling rather than sight to distinguish them, and these he must weigh in his hand, so as to recognize differences in things that need some consideration.”

Here is the very basis of sense training as it is used in schools for the deaf today. Bonet also anticipates modern ideas by insisting that, through giving letters their phonetic values, hearing children can be taught to read more quickly than by the use of the alphabet.

On the subject of lip-reading he is not so modern. He advocates the use of the manual alphabet in connection with speech teaching, and thinks that lip-reading should not be made a special object of instruction.

“For the deaf to understand what is said to them by the motions of the lips there is no teaching necessary; indeed, to attempt to teach it would be a very imperfect thing, for though it might appear possible to reduce it to a system it could not be universal, but so special as to be only understood by the master and the scholar.



For in speaking we pronounce the sounds corresponding to the letters by the formations which we make with the mouth: these and the differences between them the deaf-mute knows already, the greater part of them consisting of motions of the tongue, as has been already shown. And in order that he may read what the teacher says he must see the formation of every letter, just as when he is spoken to on the hand he has to see the motions of the fingers, since the letters are formed by these, and the deaf-mute sees and reads them. And it would be an unwarrantable thing to expect all who speak to the deaf to do so with the mouth widely opened; while in the tone in which we usually speak we do not hold the mouth open widely enough to show the movements of the tongue within it, and without seeing these the pupil cannot understand what is said, since these movements serve him for letters; and he will fall into the habit of speaking with grimaces, seeking to utter what he has to say with the same mouthing that is used in speaking to him. . . . But the reduction of the motions to a system to enable the deaf-mute to understand by the lips alone, as it is well known many of them have done, cannot be performed by teaching, but only by great attention on their part and it is to this that their success is to be attributed, and not to the skill of the master. And this is proved by the fact that those who have attained to this power have done so without being taught, further than necessity has taught them with the great assistance of nature. . . . For as one person cannot teach another what he is himself ignorant of, so neither can the teacher give rules to the deaf-mute to enable him to understand the motions of the lips, when he himself does not understand the lips of those who converse with him . . . and if anyone claims to have done this it will really have been done, not by the master but by the pupil, whom he is seeking



to deprive of this honor in order to confer it upon himself. . . . The acquisition of this power must be left to the great attention of the deaf-mute, who can do more than we ourselves in this respect."

Bonet was more modest in this matter of lip-reading than some of the other writers who descanted on the attainments of Don Luis de Velasco. Several accounts of the prowess of the young Spanish lord have come down to us. The most remarkable is that given by Sir Kenelm Digby, an Englishman, who went to Spain to visit a relative in the entourage of the Prince of Wales—afterwards King Charles I of England. Charles was making a visit of state to seek the hand of the Infanta in marriage, and arrived with his noblemen at Madrid in 1623. Sir Kenelm Digby, a youth of twenty, brilliant, versatile, and an agreeable courtier, was invited to join the English suite. During his stay in Madrid, he met Don Luis de Velasco and his instructor. It was not until twenty years later, however, that Sir Kenelm wrote an account of this meeting, so his remarks concerning Don Luis were colored by time, and he had a rather vague idea as to who the instructor was. He refers to him as "a priest," which would mean neither Bonet nor Carrion, yet he refers the reader to Bonet's book. Probably he had also heard of Ponce de Leon in this connection, and had them all mixed together. Certainly, he ascribed to Don Luis' teacher enough ability for three.

"The Spanish lord was born deaf; so deaf that if a gun were shot off close by his ear, he could not hear it: and consequently, he was dumb; for not being able to

hear the sound of words, he could neither imitate nor understand them. The loveliness of his face and especially the exceeding life and spiritfulness of his eyes, and the comeliness of his person and whole composure of his body throughout, were pregnant signs of a well-tempered mind within. And therefore all that knew him lamented much the want of means to cultivate it. . . . which to remedy physicians and surgeons had long employed their skill; but all in vain. At the last, there was a priest who undertook the teaching him to understand others when they spoke, and to speak himself that others might understand him. What at the first he was laughed at for, made him after some years be looked upon as if he had wrought a miracle. In a word, after strange patience, constancy, and pains, he brought the young lord to speak as distinctly as any man whosoever; and to understand so perfectly what others said that he would not lose a word in a whole day's conversation.

“He could discern in another, whether he spoke shrill or low; and he would repeat after anybody any hard word whatsoever. Which the Prince tried often; not only in English, but by making some Welshmen that served his Highness speak words of their language which he so perfectly echoed that I confess I wondered more at that than at all the rest. And his master himself would acknowledge that the rules of his art reached not to produce that effect with any certainty. And therefore concluded this in him must spring from other rules he had framed unto himself, out of his own attentive observation; which, the advantage that nature had justly given him in the sharpness of his other senses, to supply the want of this; endowed him with an ability and sagacity to do, beyond any other man that had his hearing. He expressed it surely in a high measure by his so exact imitation of the Welsh pronunciation; for

that tongue, like the Hebrew, employeth much the guttural letters. . . . He could converse currently in the light, though they he talked with whispered never so softly. And I have seen him at the distance of a large chamber's breadth say words after one that I standing close by the speaker could not hear a syllable of. But if he were in the dark, or if one turned his face out of his sight, he was capable of nothing one said."

Whether the teacher referred to in this account was Bonet or Carrion, the description, in spite of some hyperbole, is sufficiently trustworthy. Carrion himself wrote a book called *Two Thousand Secrets of Nature*, which was published in 1629. He described many wonders of art and science, and counted among the greatest of these the art of teaching the dumb to read, write, and speak.

He states in this volume that he was occupied with the education of Don Luis de Velasco for three years. He mentions the Marquis de Priego, whom he taught, and also Don Juan Alonso de Medina and Benevides, Knight of the Order of Alcantura, "who speak today in a way which everyone understands." It is curious that, like Bonet, he lays claim to having invented an improved method of teaching hearing children, by which they could learn to read in "fifteen days or a month."

Saint-Simon's account of Carrion's ability as a teacher refers to another high-bred youth, Prince Emmanuel of Savoy, whom Carrion "enabled to hear entirely by the movement of his lips and by certain signs, understanding everything, reading, writing, and also speaking, though with some difficulty. He—Prince Emmanuel—became so good a politician, as to be often con-

sulted on affairs of State, and at Turin he was esteemed more from his capacity than his birth and rank. There he held his little court, and maintained it with dignity all his long life, which might pass for a wonder."

Carrion was evidently an excellent teacher of the deaf. It is rather a pity that one of his admirers, a Jewish physician of Avignon, Ezechiele di Castro, who lived in Italy and wrote a tractate on the causes of deafness and dumbness, should have mixed up Carrion's authentic procedure with some of the extraordinary medical quackery of the time. He gives in his book an account of the Prince of Savoy, the Marquis of Priego, the Marquis of Fresno, and numerous other children in Spain who "speak with a clear voice, though remaining deaf, but not dumb . . . who have received this singular benefit from the ability of Manuel Ramirez de Carrion."

This is all very well, but Castro was not content to let the matter rest thus, for either he or someone to whom he imparted news of Carrion's work appended to his account an elaborate description of a medical cure for deafness, which was also attributed to Carrion. There is no evidence at all that Carrion employed such fabulous methods, although it has been suggested that he may have pretended mysterious processes, "lest he should excite the suspicions of the Inquisition by an innovation—teaching the dumb to speak—that seemed at that time all but miraculous." Here is the remedy, which is sufficiently entertaining:

"First the deaf-mute ought to purge himself according to the state of his constitution; and then he

ought to be given a special purgative of black hellebore, either in the form of a pill or of a decoction of an eighth of the root of this plant. The author took three ounces of this decoction, into which at night he put two-eighths of agaric, and having strained it added two ounces of syrup of epithyme. Having cleared out the head with this medicine once or twice according to necessity, the hairs on the crown of the head are shaven, leaving a space the size of the palm of the hand, and to this shaven part he applied a salve, consisting of three ounces of brandy, two-eighths of saltpetre and of purified nitre, and one ounce of oil of bitter almonds. This composition is boiled until the brandy is consumed, then one ounce of naphtha is added; it is then well stirred with a spatula, and reduced to the consistency of a liniment. With this salve the shaven part of the head is annointed once daily, chiefly at night, when the patient goes to sleep. By morning, after the patient has cleared out all the ducts of the brain, the ears, nose, and palate, chewed a grain of mastic, or a little liquorice—or what will be better, a paste of liquorice juice, mastic, amber and moss—combed back his hair neatly with an ivory comb, and lastly washed his face well, he is to be spoken to at the crown of the head, i. e., the shaven part: and it is wonderful how clearly the deaf-mute perceives the voice, which he could not in any way have heard by the ears.”

### BIBLIOGRAPHY

- Arnold, Thomas. Education of Deaf Mutes, 1888.
- Bonet, Juan Pablo. Simplification of the Letters of the Alphabet, and Method of Teaching Deaf-Mutes to Speak, Published in Madrid in 1920. Translated from the Original Spanish by H. N. Dixon, with Historical Introduction by A. Farrar, London, 1890.
- DeLand, Fred. Ponce de Leon and Bonet, *Volta Review*, July, 1920.

Digby, Kenelm. Treatise on the Nature of Bodies, 1646.

Farrar, A. Historical Introduction to Arnold's *Education of the Deaf*.

Hartman, Arthur. Deaf-Mutism and the Education of Deaf-Mutes by Lip-reading and Articulation, Translated and Enlarged by James P. Cassell, 1881.

Peet, Harvey. Memoir on the History of the Instruction of the Deaf, *American Annals of the Deaf and Dumb*, April, 1851.

Peet, Harvey. Analysis of Bonet's Treatise, *Annals*, July, 1851.

Ray, Luzerne. Historical Sketch, *Annals*, 1848.

Ziegler, Clara M. An Outline History of Speech Reading. Part of the Normal Course given at the New England School of Speech Reading. Unpublished.



## CHAPTER IV

### ENGLAND

In the meantime, a number of persons in England began to be interested in the deaf and to write books about them. In 1648 appeared that curious and much quoted but seldom read volume, *Philocophus*, or *The Deafe and Dumbe Mans Friend*, by John Bulwer, "sir-named the Chirosopher."

It might be interesting to glance at the background from which Bulwer, once Sir Kenelm Digby had aroused his interest in lip-reading, drew some of the material on which he based his exposition of the "subtile art." Bonet thought rather slightly of lip-reading, and considered it a "natural" art, rather than one that could be imparted, but he had evidently seen it practiced by his pupils and other persons. He must have heard of still others, for extravagant accounts of lip-reading prowess emanated about that time from Germany, Italy, and England as well as Spain.

Historians of the sign language have wondered many times why the signs and manual alphabets which were in use by various races and were brought to a high degree of perfection by the Romans in their pantomimes, were not sooner applied to the education of the deaf.

Lip-reading, too, had been now and then employed by hearing persons. Monks of several different orders became skilled in the use of signs with which they communicated during periods of retreat, and some of them practiced lip-reading also, having formed the habit of voiceless conversation at table when one of their number was reading aloud. Bulwer quotes Fabricius, the philosopher, who learned to read the lips as a school boy when, "there being many of them in a chamber, they were interdicted the use of speech."

No one, however, seems to have applied this art to the deaf until the deaf themselves began to evolve it from necessity, and then when historiographers fell upon news of it, they joyfully allowed their literary fervor to run away with them, and proceeded to raise lip-reading to the realm of the miraculous.

One of the first notices we have of a deaf person who could "understand through the eye" is in a somewhat apocryphal tale of Martin Luther. Œcolampadius, a learned man of Basle, whose private name was John Hausschein, was a friend and coadjutor of Luther. Luther came upon him one day, seated with a book in his hand and facing a pupil. Teacher and pupil "looked intently at each other, and now and then smiled a little." When the boy was dismissed, Luther exclaimed,

"Brother John, let me have you explain this."

Œcolampadius replied that the boy was deaf and that he was "instructing him through the eye." Luther was profoundly interested, and later, at Brandenburg, he

found the Lutheran clergyman, Joachim Pasch, successfully instructing his little deaf girl by means of pictures. When, therefore, the question of admitting deaf mutes to communion came up, Luther overrode all objections, on the ground that they could be taught to speak and to understand.

Bulwer speaks of this same pupil of Œcolampadius, who was so highly trained as a lip-reader that he could "listen with his eye" to a sermon, and not miss a word. Bulwer had also read a work by Jean Rudolph Camerarius (1500-74) a distinguished German classicist, who made a historic survey of the education of the deaf and dumb. This was published in 1624. It gives many anecdotes illustrative of the possibility of restoring the deaf to society. There is a graphic account of the "yong man and yong maide at Nuremberg," "who have an extraordinary acuteness of wit; and though nature brought them forth deaf and dumb, yet they can both of them read distinctly, write an excellent hand, and keep merchants accounts. . . . But among their other admirable qualifications, which nature hath bestowed upon them, this is wonderful, that they seem to understand what any one speaks by the motion of the lips; wherefore they are often at church, hearing the word preached. So that it will be no absurdity to say that it is probable they take the words in at their eyes, they are so intent, which others use to do by the ear. For they can at pleasure without any suggestion or other help, write the Lord's prayer and other pious orisons, and can remember the gospels appointed to be read on holy days as well as others, and readily write them, and

if the holy name of Jesus be mentioned in the church, he, above all the rest, will in a posture of reverence uncover his head, and bow the knee."

Most wonderful of all, however, is the young Spanish Lord, Don Luis de Velasco, of whom Sir Kenelm Digby wrote in his "Treatise on the Nature of Bodies." This was published in 1646. It made a great impression on Bulwer, who took Digby's description of the miracle as the basis of his own book, quoting it in full, and then repeating it, sentence by sentence, enlarging upon each statement by an explanatory chapter of his own.

We know little of Bulwer personally, except that he was a physician and the son of a physician. He had an analytical and philosophical turn of mind, and a prehensile literary faculty which seized upon odd bits of knowledge and turned them to his own uses. His books are readable, entertaining, and crammed with classical references, with, here and there, some well digested facts. He had made a special study of manual expression or "the natural language of the hand," and of "manual rhetoric," that is, of gesture employed in oratory. He wrote two volumes of his findings: *Chirologia* and *Chironomia*, to which he signed himself "The Chirosopher," or "lover of the wisdom of the hand." From these researches and from his interest in two of his friends, Sir Edward Gostwicke and his brother, William, who were deaf and dumb, and who made use of a manual alphabet, he was moved to prepare a work setting forth everything he could learn that would cheer these young men in their infirmity and encourage them to acquire speech. When Bulwer read

the story of Don Luis, he immediately decided that lip-reading was the solution of their problem, and he set about preparing for them "and all other intelligent and ingenious Gentlemen, who as yet can neither heare nor speake," "A Tractate whose argument is new and strange, that there never was so much matter concerning you presented under one object of the eye, containing a narrative of your original state, with the supplemental advantages thereof, the novelty and inventive strains of this booke may at once delight and profit you."

The little volume is a mixture of erudition, literary ingenuity, and philosophical vagaries. There is a complicated frontispiece, which represents Nature descending "to make the deafe and dumbe amends" by allowing one sense to officiate for another. A series of faces sketched in the margin show one individual with ears in place of eyes, another with eyes in his ears, a blind man "seeing" with his nose, and so on. There is a sketch of a deaf man listening to the music of a bass viol by placing his teeth against it. All the senses dance about with reversed shields, which show that they have exchanged functions.

His exaggerated conception of the possibilities of lip-reading, combined with his reportorial "nose for news" misled Bulwer to such an extent that his genuine knowledge and his very accurate observations on the nature of deafness and the deaf are overbalanced by the extravagant claims he makes for "the subtile art."

"When coasting along the borders of gestures and voluntary motion," he remarks, "I discovered a com-

munity among the Senses, and that there was in the continent of humanity a Terra Incognita of Ocular Audition." This he proceeds to demonstrate by argument and example. His chief idea is to prove that the deaf can be taught to speak by means of lip-reading, but he goes into the subject of deafness and of speech from every point of view, reciting all the knowledge he has been able to glean.

He commences with a lengthy philosophic discussion of the nature of speech: the mouth is an adequate organ of speech; the parts of this organ are adapted to the purpose, "Nature having had great regard to provide for the comeliness and decency of pronunciation." He explains why sounds are formed in the particular manner in which they are formed rather than in some other way. "Nature avoided the Appulse of Teeth to Teeth as that which can produce no consonant by reason of a too fierce and cruel illision of the air, which should be pleasing, soft and gentle, it being worth our labor to be so fair spoken." The tongue and the lips, by their mobility "are the most accommodated of all the parts of our body to signify what is conceived in the mind."

He then proceeds to a discussion of letters, and shows that "those letters which are uttered in pronunciation," i. e. phonetic—"are naturall; those which we write artificiall." He quotes Bacon extensively as to the origin of speech and "the motions of its instruments," and accepts from him the theory that the mind is reached only through the senses. He is possessed of an overwhelming admiration for Bacon, to whom he alludes as "The British Stagirite," "The Great Advancer of Learning,"



"The Great Augmentor of Sciences," "The Verulamian Oracle of Human Learning," and in one place suggests that Bacon is the only person in the world whose mind is great enough to comprehend the mystery of lip-reading.

By devious but logical reasoning, he arrives at the conclusion that "the forms of Letters and so consequently of Words may be punctually observed and took notice of." He then branches off and wanders over a wide range of possibilities: the resemblance of speech to "sounds of insensate creatures—as trembling of water hath resemblance with the letter L, quenching of hot mettals with the letter Z, snarling of Dogs with the letter R, the noyse of screech owles with the letter SH; voyce of Cats with the Diphthongue *eu*; voyce of Cuckoo with the Diphthongue *ou*; Sounds of Strings with the Letter *Ng*." This leads him to discuss the possible invention of an artificial instrument of speech like Friar Bacon's head, and then he speculates as to the practicability of preserving sounds "in a hollow Trunke or Pipe," and "that this Pipe being rightly opened, the Wordes will come out of it in the same order wherein they were spoken"—not a bad description of a phonograph, by the way—which paves the way for the idea of "freezing discourse in the ayre" in a cold country, so that it may be heard the following summer, or after a good thaw.

He finally gets around to lip-reading, and gives many examples to prove that articulate speech "does not necessarily require the audible sound of the Voyce . . . and so consequently may be seen as well as heard."

Many stories of lip-readers are repeated, with full embellishments; as, for instance, the Gentleman who came to Church on Easter, and because of the "greatnesse of the Congregation could not come neere the Pulpit to heare," so took "a prospective-glasse" out of his pocket, "levell'd it at the Preachers Face and not only saw but heard him very well." There was also an ancient Doctor Gabriel Neale who could understand by "the meere motion of the Lips without any audible utterance," and another gentleman, Mr. Cripes, who "wore his eare in his eye." A canny Mr. Crispe, who seems to be still another lip-reader, although his name resembles that of Mr. Cripes, "is very well known to Merchants upon the Exchange . . . . and it is very probable that sometimes this faculty was of great advantage to him, for he might chance to overheare with his eye newes of the arrivall of some shippe and of some good bargaine . . . . amid the buzzing noize of the Royall Bee-hive of our Emporium . . . . his eyes being vigilant upon the motions of mens mouthes, and no way distracted with that bartering noyse there made."

This same Mr. Crispe once pushed himself forward through a crowd to witness an execution, and, being deaf, did not hear the officer commanding him to halt, so obtained a good place in front of the scaffold and "kept his eyes rivetted upon Sir Alexander's face during the time of his last speech, which he so perfectly understood and carried away with him that he was able to relate it againe to others."

Bulwer antedates authors of the *Judith Lee* variety by the theory that lip-reading "might be of notable use

in discovering the secret whisperings of perfidious men, who are of the Generation Solomon speaks of, who move their lips to bring evil to pass." Somewhat disrespectfully, he suggests that "Had old Eli had this art when he observed Hanna's mouth, seeing her lips going, he would not have so rashly taxed her of Drunkenness as he did, but might have understood the intention of her prayer."

(1 Samuel 1:13. "Now Hannah she spake in her heart; only her lips moved, but her voice was not heard; therefore Eli thought she had been drunken.)

Thus Bulwer arrives at Sir Kenelm Digby's account of Don Luis Velasco. This has astonished him so much that he thinks only "the grand Master of Subtleties," i. e. Bacon, can understand "the particular Notions and Rules of this new found Art," but modestly suggests that "a lesse acute understanding may fasten a few easie Observations . . . upon the achievements being a matter of fact."

This art may seem "exceeding strange," he says, "to those who know not that there is a community among the senses." "Touch is the groundwork of all the rest." From this idea he draws some apt conclusions. "Sound and motion do go hand in hand"; "the voyce is a kind of percussion." Thence he arrives at a conception of the possibility of a deaf person's reproducing sound by virtue of his sense of touch, but he is more exclusively occupied with the "ear situated in the eie," and is bent upon proving that it is chiefly by means of lip-reading that the deaf may learn to speak.

He touches upon everything he has learned which may relate to the general condition of the deaf. He wonders "why Deafe men should get deafe children." "What the issue of a Deafe and Dumbe man and woman would prove there hath been no opportunity afforded to trie, because few philosophers have been bidden to such a wedding." With all these divagations, he does not roam far from the subject of lip-reading. In one chapter he makes a large concession to the conservatives by naming over cases in which those who practice "the art of Labiall Augurie" might encounter obstacles.

"Those borne with Haire lips . . . . those with great Blabber-lips . . . . they also who are troubled with a Humerall lask of the belly and with a Catarrh, which makes them wrest and writh their lips in speaking . . . . old men in the defect of their teeth . . . . those who pay little homage to the Goddess Dentilla . . . . and Dwarfes that have no mouthe, but a round little hole."

With these exceptions and a few others, lip-reading can be generally relied on to take the place of hearing. Indeed, it is a kind of universal language, and just as Don Luis, according to Sir Kenelm Digby, was able to repeat words which a Welshman said to him in that tongue, so a lip-reader is "made a generall Linguist," since "these outward motions of speech come very neare to the nature of a universall character."

It is interesting to note here that, almost three centuries later, a modern teacher of lip-reading, Miss Martha Bruhn, was approached by a gentleman who wanted to acquire the art so that he could understand all languages!

In his preface, Bulwer tells his young friends that he had planned to open an Academy for "those in your condition," but that, "having provided all kinde of materielle requisite," he found that the attempt seemed "to rationall men, paradoxicall, prodigious, and Hyperbolicall; that it did rather amuse them than satisfie their understandings." He has therefore written this book "to hint the phylosophical veritie of this art."

Bulwer's enthusiasm over lip-reading, and an evident cloudiness in the minds of some of his admirers as to what he was really talking about, led to his being both over-rated and under-rated by his contemporaries. His portrait in Rodd's Collection of Portraits bears a most fulsome legend and a somewhat grumbling commentary thereon, evidently by a later hand:

"John Bulwer, sirnamed Chirosopher, alias Philocophus, Distinguished reader of countenances. Mystic high priest of both kinds of physiognomy. Dissector of the muscles of the mind. First Investigator of natural language. Moral anatomist. The modern Aristotle. Most famous of surgeons. August supporter and vindicator of nature. M. D. By such titles is our author called by the distinguished judgment of scientific men. To which I (rather grudgingly) subscribe. G. H."

Three of Bulwer's contemporaries in England taught the deaf and wrote books describing the methods they used, but none of them refer to him in any way, except that one of them discredits Sir Kenelm Digby's account of Don Luis. Nevertheless, because his book treats so exclusively of lip-reading, and because it is the first work we have on the subject, it is more interesting to

us than books prepared by men who had a more practical and professional comprehension of deafness than the versatile Bulwer.

William Holder (1616-1698) was a musician, a clergyman, a Fellow of the Royal Society, and a brother-in-law of Sir Christopher Wren. In 1659, he undertook to teach Alexander Popham, the deaf son of Admiral Popham and Lady Wharton. Ten years later, he wrote a summary of the method he employed and presented it to the Royal Society, who ordered it printed. The main portion of the book is a classification of the elements of speech and "an inquiry into the natural production of the letters, directing to a steady and effectual way of instructing Deaf and Dumb persons to obtain a reasonable perfection of utterance of speech, and to discern, in some measure, with their eyes, by observing the motions of their mouths, what others speak."

Like Bulwer, Holder makes continual use of the word "appulse" in describing sounds. The "appulse of one organ upon another," he explains, may be imparted to the deaf "by his Eyes, and showing him the visible motions and figures of the Mouth." "It must be confessed," he admits, "that there lie in the way great Objections and Difficulties," the first of these being that it is "painful and irksome to a deaf Person to exercise his voice," and the second that "it may well be doubted how some of the Consonants and most of the Vowels can be described to the Eye of a deaf Person."

His ideas of lip-reading are clearly set forth, and are more advanced than those formulated by some of the



nineteenth century instructors who attempted to teach adults by informing them of the positions of speech.

“At First, Any Equivocal word spoken alone, cannot be determined to any one certain Sense and Signification by him that hears it; of which there are numerous examples in every Language: Yet the same word in Connexion of Speech, as part of a sentence, is understood as easily as any other; ex. gr. *But*: if I ask you what I mean by that word, you will answer, I may mean this or that thing or something else, you cannot tell which: but if I joyn it with other words in Construction and Sense, as (But I will not) (a But of Wine) (But and Boundary) (The Ramme will But) the meaning of it will be as ready to you as any other word.

“In like manner if the Deaf Person discern with his Eye one single articulation, suppose by the Appulse of the Lips, he cannot distinguish whether it be *p*, *b*, or *m*. But this same Articulation joyned with others, in Words and Sense, he having a general perception of the subject whereof you discourse, and a greater than ordinary measure of Sagacity, will not be to seek which of these three Labial Consonants you used.”

It is evident that he refers to hard of hearing lip-readers when he remarks, “The Histories of those who could discern speech by their Eye are most of such as having had knowledge of Language and a readiness in Speaking, falling afterwards into Deafness, have lost the use of Speech, but still retain the memory of it.”

Deaf persons, he says, “being denyed Communication by the Ear, their Eyes are the more vigilant, attent and heedful, which renders them much more capable of being improved by directions and instructions to that Sense, and gives a delight and encouragement to these who teach such apprehensive Scholars.”

But he does not seem to have depended to any great extent on lip-reading as a means of communication with his pupils, for he describes a finger alphabet formed by naming the joints of the fingers by letters, and touching them in succession to form words. "And you may, when you please, have the recreation of surprizing those with Admiration who shall hear the Deaf person pronounce whatsoever they (though with privacy) shall desire, without your seeming at all to guide him with your Eye or Mouth, otherwise than by beckoning to him to speak, whilst you secretly describe it with your fingers."

A more eminent and celebrated divine disputed with Holder the claim to priority in the matter of teaching the deaf to speak. This was John Wallis (1616-1703), an Oxford professor and a great mathematician. He was associated with Robert Boyle, the physicist and chemist, and several of his tractates on teaching the deaf are addressed in the form of letters to Robert Boyle. The weekly meetings of Boyle, Wallis, and others interested in the advancement of science resulted in the incorporation, in 1663, of the Royal Society. It is because of Wallis' scientific eminence that his work in behalf of the deaf is noteworthy rather than because of any great intrinsic merit in his method of teaching.

In 1653, Wallis published a Grammar of the English Language, intended for foreigners who wished to learn English. To this was added, in later editions, a treatise on Speech, "Wherein I have philosophically considered the formation of all sounds used in articulate speech." "In pursuance of this I thought it very possible to teach

a deaf person to speak, by directing him . . . . at the sound of each letter required." In 1660, he undertook to teach speech to a young man of twenty-five, Daniel Whaley, the son of the Mayor of Northampton. In a year, he claimed, he had taught Whaley to pronounce distinctly any words, "even the most difficult of the Polish language, which a Polish lord then in Oxford could propose to him, by way of trial." Whaley was examined as a phenomenon by the Royal Society and exhibited before the King. Later, Wallis "did the like for Mr. Alexander Popham with like success. On whom Dr. Holder had before attempted but gave it over."

The Philosophical Transactions in 1678 contained a warm letter written by Dr. Holder, "Some Reflections on Dr. Wallis, his Lettre there inserted," and a still warmer letter written by Dr. Wallis, "in answer to the cavils of Dr. W. Holder." Each claimed to have been first in teaching young Popham to speak, and therefore in "inventing" the art of instructing the deaf. It seems that Holder really was the first to instruct the youth in question,, but that Wallis had published his text book ten years or more before Holder issued his treatise. Neither author had, apparently, seen Bonet's book, and neither had arrived at his degree of comprehension of the subject, either in the matter of articulation or of language teaching.

Wallis admits the possibility of lip-reading, but does not propose to teach it:

"And though it may be thought possible that he may in time discern by the motion of the lips (visible to the eye) what is said to him (of which I am loth to deliver

positive judgment, since much may be said conjecturally both ways) yet this cannot be expected till at least he be so perfectly master of the language as that by a few letters known, he may be able to supply the rest of the word, and by a few words the rest of the sentence, or at least the sense of it, by a probable conjecture (as when we decipher letters written by cipher) for that the eye can actually discern all the varieties of motion in the organs of speech, and see what sounds are made by these motions, of which many are inward, and are not exposed to the eye at all, is not possible."

This is the opinion also of Dalgarno (1626-1687) whose book, *Didascalocophus, or the Deaf and Dumb Mans Tutor*, published in 1680, is, though less practical, more comprehensive and enlightened than those of either Holder or Wallis. Dalgarno was a Scotchman who flourished as master of a private grammar school at Oxford at the same time that Wallis lived there. They were personal acquaintances, yet neither acknowledges any indebtedness to the other. Like many of the philosophers of his time, Dalgarno was interested in formulating a universal language, and from his studies in this direction, he became interested in teaching language to the deaf. Although chiefly theoretic, his ideas are admirable. He goes straight to the point by affirming that language should be imparted to the deaf by a method, "not too grammatical," but "somewhat mixt, and as it were middle between the grammatical way of the school and the more rude discipline of the nursery"; in other words, by natural methods rather than by the strict adherence to grammatical rules which Holder and Wallis advocated.

As for lip-reading, though, he is very skeptical:

"Tho here I must add: That they could understand but very little from the motion of the lips, which when most distinct must be full of ambiguity, and aequivocalness to them, without other circumstances concurring. For when dumb people make it appear that they understand many things that pass in discourse where they are present, Children and fools cannot be persuaded but they Hear: Superstitious and ignorant people think they have a familiar Spirit: others despising the folly of the one, and impiety of the other, do judge, that they are able by the Eye, as distinctly to receive words from the speakers mouth as others by the Ear. But the truth is, what they understand is from a concurrence of circumstances, many of which are often as material as the motion of the speakers lips; such as, his eyes, countenance, time, place, persons, etc."

He discredits Sir Kenelm Digby's account of Don Luis Velasco, thinking that, because of the Englishman's ignorance of the subject, and the young tutor's desire to display his pupil to the best advantage, Sir Kenelm imagined the young lord to be reading the lips when the tutor was really "standing by with a finger alphabet," and surreptitiously repeating the remarks which Don Luis recited so glibly.

Dalgarno himself recommended the manual alphabet as a means of communication, using one similar to that of Holder, locating the letters on the finger-tips and palm of one hand, these to be touched by the thumb or finger of the other hand. This was very ingenious, as several letters could be indicated simultaneously, and a kind of short-hand evolved. Graham Bell used this

method with his first pupil, George Sanders, who wore a lettered glove during his lesson periods. In the Volta Bureau Library is a small note-book in which Dr. Bell has inscribed in a neat, careful hand "Notes on the Works of George Dalgarno, by A. G. B." It is a résumé of *Didascalocophus*, and contains a sketch of Dalgarno's diagram of the hand, with the letters of the alphabet indicated on the fingers.

In the same little book, Dr. Bell has made notations from *The Deaf and Dumb Man's Discourse*, by George Sibscota. This is an inconsequential work which was published in 1676, and was really a translation of a German book by Anthony Deusing of Groningen. Deusing was attempting to reconcile new found facts with old views, and is not quite ready to believe that the deaf can be given a practicable amount of speech, although he somewhat grudgingly admits the possibilities of lip-reading. Most of his book is merely a re-hash of more important works.

#### BIBLIOGRAPHY

Arnold, Thomas. Education of Deaf Mutes, 1888.

Baker, Charles. Sketch of John Bulwer, *American Annals of the Deaf and Dumb*, 1851. Vol. III, p. 120.

Bulwer, John. *Philocophus: or the Deaf and Dumbe Man's Friend*. Exhibiting the Philosophicall verity of that subtile Art which may inable one with an observant Eie to Heare what any man Speaks by the moving of his lips, Upon the same Ground, with the advantage of an Historicall Exemplification, apparently proving, That a Man Borne Deafe and Dumbe may be taught to Heare the sound of words with his Eie, and thence learn to speak with his tongue. By I. B. sir-named the Chirosopher. *Sic Canimus Surdis*, London, 1648.



- Camerarius, P. The Living Libraries, or Meditations and Observations Historical, Natural, Moral, Political and Poetical, Written in Latin. Done into English by John Nolle, London, 1625.
- Dalgarno, George. Didascalocophus, or the Deaf and Dumb Man's Tutor. To which is added a discourse of the Nature and Number of Double Consonants. Both which Tracts being the first (for what the Author knows) that have been published upon either of the subjects. Oxford, 1680.
- DeLand, Fred. Ponce de Leon and Bonet, *Volta Review*, July, 1920.
- Digby, Kenelm. Treatise on the Nature of Bodies, London, 1646.
- Holder, William. The Elements of Speech. An Essay of Inquiry into the Natural Production of Letters. With an appendix Concerning Persons Deaf and Dumb, 1669.
- Holder, William. A supplement to the Philosophical Transactions of July, 1670. Some Reflections on Dr. Wallis his Letter there inserted. London, 1678.
- Philosophical Transactions of the Royal Society, 1668, Vol. 1, p. 243 of Hutton's Abridgement.
- Porter, Samuel. Bibliographical Sketches, *Annals*, I. p. 34, 1848.
- Sibscota, George. Deaf and Dumb Man's Discourse, or Concerning those who are born Deaf and Dumb. London, 1670.
- Wallis, John. Grammatica Linguae Anglicanae. De Loquela. Oxford, 1653.
- Wallis, John. Letter to the Hon. Robert Boyle, dated March, 1662. Published in the Philosophical Transactions of the Royal Society for July, 1670.
- Wallis, John. A Defence of the Royal Society and the Philosophical Transactions, particularly those for July, 1670, in answer to the cavils of Dr. W. Holder, by way of letter to Wm. Lord Viscount Brouncker. London, 1678.
- Wallis, John. Letter to Thomas Beverley, dated September 30, 1698. Published in the Philosophical Transactions for October, 1698.
- Wallis, John. Letter to J. C. Amman, and published in Amman's *Dissertatio de Loquela*, Amsterdam, 1700.

## CHAPTER V

### OTHER BOOKS AND METHODS ENGLAND, BELGIUM, HOLLAND, FRANCE

Another contemporary of Wallis and Dalgarno, Meric Casaubon, published in 1665 "A Treatise Concerning Enthusiasm." He expatiated on several modes of self-expression, particularly "Rhetorical Enthusiasm." In one chapter of his book are references to the history of lip-reading and the mechanism of speech, "by the perfect knowledge whereof the deaf and dumb may be taught not only to understand whatever is spoken by others; as some (upon credible information) have done in England; but also to speak and to discourse." He refers to Bonet's book, and mentions cases of lip-readers in England, the details of whose achievements had been related "by two grave divines; whereof the one affirmed concerning a man, the other concerning a woman . . . which nevertheless at a certain distance, and by diligent observation of the motions of the mouth and face, could tell what was spoken unto them. But of the woman I was told particularly that she could understand them only that were beardless."

He recommends lip-reading for the hearing also, who "would be glad sometimes perchance, upon some special

occasions, to know how they might speak and be spoken unto at a convenient distance, without a tongue or noise or sign discernible unto others. But this perchance may be but my fancy . . . .”

Two years after the publication of Casaubon's book, and two years before the appearance of William Holder's treatise, Franz Mercurius van Helmont (1618-1699), a son of the celebrated chemist, Jan Baptista van Helmont, and a friend of Locke and of Leibnitz, published a work on speech. Written very learnedly in Latin, it was designed to prove that the characters of the Hebrew alphabet corresponded in appearance to the positions of the tongue and lips in uttering the elements of speech. The long title of the book states that “the truly natural Hebrew alphabet at the same time furnishes a method by which those who have been born deaf can be so taught as to enable them at least to understand persons speaking, and even themselves attain the use of speech.”

The underlying idea was that God had given the ancient Hebrew alphabet to man as a pictorial representation of the speech which He taught to the first man. After years of study and research, van Helmont published this remarkable pamphlet, which comprised chiefly diagrams of the positions of speech, showing their counterparts, as he considered them, in the Hebrew alphabet. The frontispiece portrays the author sitting before a mirror with a pair of calipers by means of which he is measuring the space between his lips as he pronounces a vowel. In the pamphlet, van Helmont tells how, by using these diagrams, he taught a deaf-

born child to speak and to read speech from the lips. His ideas are so full of mysticism they have not received very serious consideration from educators of the deaf, but his little book contains the first pictorial presentation of the organs of speech that was ever published, and for this reason it is valuable.

That he himself did not over-rate his achievements in the matter of teaching the deaf is evidenced by his remarks to Amman, who tells us,

“When I was instructing the sixth deaf-mute, circumstances made me acquainted with that celebrated philosopher, J. B. van Helmont (now among the saints), who informed me of a certain natural alphabet, discovered by him some years before, by which he had instructed those who had been deaf and dumb from birth. But when he saw and heard me teaching, he acknowledged with the greatest candour that I had not only not borrowed anything from him, but that I had greatly surpassed him in practical results.”

John Conrad Amman (1669-1724) was born in Switzerland. He was an enthusiastic student, and received his degree as doctor of medicine when he was only eighteen. Compelled to leave his country on account of his religious ideas, he went to Holland and settled as a physician at Haarlem. Because he was unable to cure deafness in one of his patients, a little girl named Esther Kolard, he set about teaching her to speak. It was not until after he had published a pamphlet describing the method he employed that he became aware of the fact that men in other countries were doing the same thing. His first book, *Surdus Loquens* (*The Speaking*

*Deaf*) was issued in Amsterdam in 1692. An English translation was published in 1694. As soon as Wallis read it, he communicated with Amman, stating that he also had succeeded in teaching the deaf to speak. Amman procured Wallis' treatise, and in his preface to an enlarged edition of his own work, which was published in 1700 under the title *Dissertatio de Loquela* (*A Dissertation on Speech*) he pays tribute to Wallis, and at the same time points out what he considers are errors in the latter's conception of certain sounds.

Amman had arrived independently at the knowledge that deaf-mutes are mute because they are deaf, and had worked out his own method of speech-teaching, which he based largely on the theory that the deaf could be taught to imitate sounds by means of lip-reading and watching their own speech movements in a mirror. "From that time I wished to have a deaf person to instruct. The friends to whom I communicated this idea and whom I asked to assist me in finding a pupil laughed at me as a crazy mathematician, but their opinion was soon changed when I brought a deaf pupil before them, some time after, being able to speak and to read."

Amman must have been a better teacher than writer, for, to judge from his apparent success with his pupils, he had worked out a practicable method of instruction. He does not describe it very clearly, however. "If I seem obscure in some parts to anyone reading this treatise," he remarks, "I trust that it will be imputed to himself rather than to me, for I boldly assert that there

is as much certainty in my system as in mathematical demonstrations. During the whole time that I have practiced, I have failed with but one, a girl whose intellect was dull and a worthless Jew, whose father, I foresaw, would not even thank me for the pains I had taken."

Amman had a deeply religious idea of the nature of speech and a mystical attitude toward it somewhat resembling van Helmont's, although Amman believed that we lost our "divine speech" at the time of the fall. He seems to have meditated greatly upon the words of St. John, "In the beginning was the Word, and the Word was with God, and the Word was God," and he evolved from this his own metaphysical interpretation of speech. He believed that man was originally endowed with a creative language which enabled him to effect all things merely by "speaking the word," but that he lost this faculty and retained only a shadow of it, "a mere artifice without which we should be mute." But this artifice, being all that we have left of our original divine language, is very important, "for nothing emanates from us which bears a more vivid character than our Voice." It is necessary, therefore, that those who do not speak because of being deaf should have speech artificially restored to them. He lays great stress on articulation teaching, and the main portion of his book comprises a consideration of the nature of voice and of breath, and a description of the organs of speech. It is evident that he labored earnestly to impart a good articulation to his pupils.



"I have often been amused," he remarks, "at the absurd opinions of different persons, who, believing that I infuse speech into deaf-mutes with a little portion of medicine, complain that I ask too great a fee for curing, or rather fee for teaching, whereas they do not know that I am put to immense and incredible labor for a year or so in giving instruction to a single deaf-mute, and although the method which I pursue has nothing miraculous about it, the patience necessary to the practice of it is all but miraculous."

It is strange that, with his conviction of the importance of speech and articulation, he should lay so little stress on language. He regards language teaching as a mere by-product.

"When my pupil, a born mute, is able to read and to imitate me a little in speaking, I treat him as a sheet of white paper, or as a young child. First I teach him the names of the most obvious things, substantives as well as adjectives, as also the more necessary verbs and adverbs, with some conjunctions, then declensions and conjugations, and, not till last, the peculiar constructions of the language, which I explain to him by the most amusing and useful examples relating to his necessary wants, reverence to God and to his parents, honesty, kindness of manners, etc."

He has a strong conviction of the value of speech-reading, considering that it is adaptable to the use of the hearing and to those with speech defects as well as to the deafened and the deaf.

"1. They who hear with such difficulty that they can neither frequent the house of prayer, nor the society of their friends without feeling great inconvenience, may so exercise themselves before a mirror that, in

spite of their deafness, they may learn to hear with their eyes and derive the greatest pleasure from the exercise.

"2. Boys under a skillful teacher may not only learn to read whatever language they please by this method in an incredibly short time, but may also learn to pronounce every language which they acquire, if, while learning, they accustom themselves to attend to the formation of each letter.

"3. They will afterwards hear with their eyes as well as their ears, and by this means they will frequently obtain a great advantage; for we are often much concerned by what is done or said secretly of us, and by what is clandestinely plotted against us or other people, which, though we were present might easily be concealed by muttering with a low voice; happy should we be if, by detecting with the eyes what was denied to the ears, we could escape danger, and find out in this way the insidious secrets of others."

All these men who were interested in mitigating the lot of the deaf were more or less originators. Each worked independently, constructing his own method, and arriving at a greater or less degree of comprehension of the difficulties and possibilities connected with teaching deaf persons to speak and to read the lips, or otherwise understand language. As books began to be printed more frequently, these educators became aware of one another's achievements, and some of them even set up correspondence with one another. But successful teachers were still few and far between, and the literature on the subject was still interspersed with a good deal of romance.

In 1685, the same Sir Robert Boyle to whom Wallis

addressed his tractate on teaching the deaf received a letter which Bishop Gilbert Burnet sent to him from Rome. This letter was afterwards published in a book entitled *Burnet's Travels*. The Bishop wrote concerning a deaf girl whose ability to read the lips astonished him so much that he found it worthy of communication to his scientific friend. The idea evidently prevailed among the girl's relatives that she had "caught" her deafness from a hard of hearing wet nurse.

"There is a minister of St. Gervais, Mr. Gody, who hath a daughter that is now sixteen years old: her nurse had an extraordinary thickness of hearing; at a year old the child spoke all those little words that children begin usually to learn at that age, but she made no progress; yet this was not observed till it was too late; and as she grew to be two years old, they perceived then that she had lost her hearing, and was so deaf that ever since, though she hears great noises, yet she hears nothing that one can speak to her.

"It seems while the milk of her nurse was more abundant, and that the child sucked more moderately the first year, those humours in the blood and milk had not that effect on her that appeared after she came to suck more violently; and that her nurse's milk, being in less quantity, was thicker and more charged with that vapour that occasioned the deafness.

"But this child hath, by observing the motions of the mouths and lips of others, acquired so many words, that out of these she hath formed a sort of jargon, in which she can hold conversation whole days with those that can speak her own language. I could understand some of her words, but could not understand a period, for it seemed to be a confused noise.

"She knows nothing that is said to her unless she seeth the motion of their mouths that speak to her; so that in the night, when it is necessary to speak to her, they must light a candle."

He goes on to tell how she "discourses in the night" with her sister by laying her hand on her sister's mouth, "but it did not hold out very long." "Thus this young woman," he says, "without any pains taken on her, hath, merely by a natural sagacity, found out a method of holding discourse, that doth in a great measure lessen the misery of her deafness."

Returning to England, we learn of another deaf girl, Jane Forster, who was taught by Henry Baker (1698-1774). Baker was a well known naturalist and poet and a Fellow of the Royal Society. In 1720, he went to visit a relative, John Forster, and became interested in his deaf daughter, Jane, then about eight years old. As he says, "Heaven put into my thoughts a method of instructing her to read, write, understand, and speak the English language, which communicating to her father, he entreated me to make a trial, and from that time would never part with me till I had perfected her in the language, and taught her not only to read, write and speak it readily, but likewise to understand the speech of others by sight, and be able to hold a regular conversation with them upon most subjects."

Baker's success with this child was so well recognized that he was able to start a small private school. He was "not solicitous that mankind in general should profit by his power of communicating ideas to these unfortunate objects, for he is said to have required a bond of £100

from each pupil not to mention his method of teaching." He was "entreated by Dr. Johnson" to publish an account of his method, but all that we have from his hand is a set of exercise books which he used in his school. These show an admirable grasp of the essentials of teaching the deaf, especially in the matter of language. Louis Dutens, a Frenchman living in England at that time, wrote an article for *The Christian Observer* in 1809, in which he describes his own success in teaching a Miss Wyche. He says,

"I applied to a professional man, named Baker, who, by a method of his own had taught Lady Inchiquin and her sister, and some other pupils . . . I saw some of his scholars; and was astonished at the facility with which they understood what I said, by observing the motion of the lips. They also answered me."

When Baker left the Forster household, he married a daughter of Daniel Defoe. Defoe himself had, a few years previously, published a characteristic work on the education of the deaf. This was called *The History of the Life and Adventures of Mr. Duncan Campbell, a Gentleman, who, though Deaf and Dumb, Writes down any Stranger's Name at first sight; with their Future Contingencies of Fortune. Now living in Exeter, over against the Savoy in the Strand*. This work had even less foundation in fact than *Robinson Crusoe*, but it was so ingeniously contrived that it was accepted as a true relation by many persons, and the *Encyclopedia Britannica*, in the edition of 1819, listed it among authentic works on the education of the deaf.

Duncan Campbell actually lived and apparently fat-



tened on the publicity given him by Defoe. He pretended to be deaf and dumb and to tell fortunes, and was at one time very popular, as is evidenced by his having been mentioned both in the *Tatler* and in the *Spectator*. Sir Walter Scott, in his life of Defoe, refers to Campbell as a pretender, but many persons seem to have been misled by the air of authority Defoe managed to impart to his book. In some of the older histories of the deaf, Duncan Campbell is mentioned as an educated deaf-mute who instructed other deaf-mutes. Defoe's book contains a chapter of information on the education of the deaf, and many references to lip readers. He quotes Dr. Wallis and Bishop Burnet. He mentions Carrion's pupil, "the uncle of his present Sardinian majesty," "Sir ————— Gostwicke," Bulwer's friend, and enlarges on the attainments of a remarkable young lady.

"In Hatton-Garden, there now Lives a Miracle of Wit and good Nature, I mean the daughter of Mr. Loggin, who, tho' born Deaf and Dumb yet writes her Mind down upon any Subject with such Acuteness, as would Amaze Learned Men themselves, and put many Students, that have passed for Wits, to a Blush, to see themselves so far surpassed by a Woman amidst that deficiency of the common Organs. If anybody speaks a word distinctly, this Lady will, by observing narrowly the Motion of the speaker's Lips, pronounce the Word afterwards very Intelligibly."

The first edition of this book was published anonymously the year before *Robinson Crusoe* was issued.

Contemporary with Baker was the first teacher of the deaf in France, Jacob Rodrigues Pereire (1715-



1780). A Jew of Spanish birth—he was born in Berlanga—he was driven by persecution to Portugal and finally to France, where he settled in Bordeaux. His first pupil was his sister, whom he taught to speak, and who inspired him with a desire to learn more of the deaf and to devise a method of instructing them. He spent some years studying and experimenting with his sister, and then taught a young man, d'Azy d'Etavigny, who made such good progress that in 1749 he was exhibited before the French Academy of Sciences. The Academy appointed a commission, of which Buffon was a member, to report on the value and results of Pereire's method. Their report gives an account of the pupil's attainments, and adds,

“We find that the progress made by d'Azy d'Etavigny justifies Pereire in hoping that, by his method, congenital deaf-mutes can not only learn to read, pronounce, and understand common words, but also acquire abstract notions, and become capable of reasoning and acting like others . . . . We have no difficulty in believing that the art of lip-reading, with its necessary limitations, will be useful to other deaf-mutes of the same class . . . . as well as the manual alphabet Pereire uses.”

All of this was conducive to fame and fortune for Pereire. He was introduced at Court and was asked to undertake the education of the god-child of the Duc de Chaulnes, the celebrated Saboureux de Fontenay. M. de Fontenay remained with Pereire five years. He, in turn, appeared before the French Academy to demonstrate Pereire's ability as a teacher.

Pereire made use of the manual alphabet in instructing

de Fontenay, but his ideas of language teaching were very advanced.

"It was by usage that I learned French," wrote de Fontenay, "and my education was not mechanical . . . . In the same manner in which an infant learns French, so M. Pereire applied himself at first to give me a knowledge of words in daily use and of the commonest phrases, such as 'open the window,' 'close the window,' 'open the door,' 'close the door' . . . . and in order to exercise me still more in the meaning of familiar phrases, he made me take part in doing everything according to the import which the language would suggest to my mind . . . . to reply to all questions, easy or difficult, and to reproduce my own thoughts. He also obliged me to give a daily report of everything that had occurred, to repeat whatever had been said, to talk, to converse, to dispute with himself or others about everything of ordinary use we might think of; to write letters in my own way to my acquaintances, and to reply to letters I had received."

De Fontenay became a famous linguist, and also seems to have instructed other deaf persons in languages. He developed a passion for strange tongues, and although he seems, in later life, to have lost what speech and lip-reading he learned from Pereire, he continued his studies, travelling widely, and, "having exhausted the languages of Europe," embarked on Hebrew, Syriac, and Arabic. His idea in this study seems to have been an outgrowth of the mystical ideas of van Helmont and Amman. He pursued "the metaphysics of language," or, as he said, "that intellectual process which applies to ideas recognizable signs or symbols, which arranges these signs in a certain order that ex-

presses their meaning, and which with these signs or symbols pictures thoughts and images in a graphic and vivid manner." His ideas were sufficiently arresting to attract the attention of savants at the universities of Stockholm and of Upsala, where he went to study Arabic.

His attainments added lustre to Pereire's fame. Pereire was noticed by Rousseau and Diderot, and England made him a Fellow of the Royal Society. He published nothing, however, and his method died with him. A memorial to him was erected in 1929 at Peniche, Portugal. Pereire died two years after the French Council had placed de l'Épée's school under the protection of the King.

#### BIBLIOGRAPHY

- Amman, John Conrad. A Dissertation on Speech. Originally printed in Latin by John Wolters, Amsterdam, 1700. Printed in English by Sampson Low. London, 1873.
- Arnold, Thomas. Education of Deaf Mutes.
- Burnet, Gilbert. Burnet's Travels. A Collection of Letters to the Hon. Robert Boyle, Esq. .Wrote by Gilbert Burnet, D. D. Afterwards Bishop of Salisbury. London, 1737.
- Casaubon, Meric. A Treatise Concerning Enthusiasm. London, 1665.
- De Foe, Daniel. The History of the Life and Adventures of Mr. Duncan Campbell. London, 1720.
- DeLand, Fred. The Pioneer Pictorial Presentation of Mouth Positions for Use in Teaching Speech and Speech-Reading to the Deaf, *The Volta Review*, July, 1914.
- DeLand, Fred. Ponce de Leon and De l'Épée, *Volta Review*, July, 1920.
- Dutens, Louis. On the Capacity of the Deaf and Dumb, The Christian Observer, London, Vol. VIII, p. 432, July, 1809.
- Farrar, A. Introduction to Arnold's *Education of the Deaf*.

Memorial to Pereire, Editorial. *Volta Review*, November, 1929, p. 737.

Peet, Harvey P. Memoir on the Origin and Early History of the Art of Instructing the Deaf and Dumb, *Annals*, April, 1851.

Porter, Samuel. Bibliographical Sketches, *Annals*, April, 1848, July, 1848. Vol. I, pp. 181-193, 220-237.

Ray, Luzerne. Historical Sketch, *Annals*, July, 1848.

Tiegel, Agatha. Mr. Duten's Pupil, *Annals*, Vol. XXXIX, 190-192, 1894.

Vaisse, Leon. Saboureux de Fontenay and his Instructor Pereire, *Annals*, January, 1878.

## CHAPTER VI

### DE L'EPÉE AND HEINICKE

Charles Michel de l'Epée (1712-1789) has been called the Apostle of the deaf. Although other teachers brought their pupils to a higher degree of attainment in speech and lip-reading and general knowledge, no one previously had done so much for the deaf as a class. He gave them a lifetime of devotion and loving comprehension. He was the first to establish a school for the deaf, and the first to teach poor deaf children. A few years after his death, his work was almost forgotten by his contemporaries, yet all the deaf and all teachers of the deaf today acknowledge their debt to him, for he was the gentle pioneer of all organized effort in behalf of these neglected children.

He was born at Versailles, where his father was an architect in the Royal service. His family were socially prominent, and it was a disappointment to his father when Charles Michel elected the Church as his career. While studying for the priesthood, he embraced the liberal views of the Jansenists, which were opposed to those of the Jesuits, then in power both at Court and in Rome. When he applied for admission to the priesthood, therefore, the bishop, following instructions from Rome, refused to ordain him. De l'Epée studied law

and was admitted to the bar. He had just begun to practice when he became dissatisfied with the profession, and turned from it to work among the poor in Paris. The Bishop of Troyes, a nephew of Bossuet, learning of de l'Épée's desire to enter the priesthood, ordained him and appointed him to a canonry in his diocese, but six years later, at Bishop Bossuet's death, de l'Épée was removed from office. A priest only in name, but still wearing the priestly dress, he returned to Paris and his work among the poor.

Gentle, humble, and spiritual, all his actions were governed by religious motives. "The habit of virtue was developed in him to such a remarkable degree," remarks an old biographer "that the very thought of evil became foreign to his nature. Indeed, so pleasant and easy did goodness seem to him, that in after life he was often troubled because he could remember so few struggles with sinful inclinations; and he was sometimes even led so far as to doubt the reality of a virtue which had cost him so little."

It was his religious idea that motivated his determination to teach the deaf. There is a pretty story connected with this. He happened to enter a house in which two young girls were occupied with sewing. He spoke to them several times, but they merely went on with their work and did not reply. When he asked their mother the cause of their rudeness, she told him they were deaf and dumb. They had received, she said, "by means of pictures," a little instruction from a priest who had since died.



"Believing," said the Abbé, "that these two unfortunates would live and die in ignorance of religion if I made no effort to instruct them, my heart was filled with compassion, and I promised that if they were committed to my charge I would do all for them that I was able."

He set about this work with nothing to guide him except the rude signs the sisters made to each other, and his own belief that they must be taught as quickly as possible to understand the nature of God. At first he used writing and the manual alphabet, following a natural method of teaching them language.

"We next write in large characters with a white crayon upon a black table these two words, *the door*, and we show them the door. They immediately apply their manual alphabet five or six times to each of the letters composing the word *door* . . . . This done they efface the word, and, taking the crayon themselves, write it down in characters, no matter whether well or ill formed.

"Charmed with the facility which I discovered of instructing the deaf by writing and the intervention of methodical signs, I bestowed no thought upon the means of untying their tongues."

He succeeded so well that he soon found himself at the head of a little school, all the pupils of which came from poor families. One day a stranger visited the school and offered de l'Epée a Spanish book, remarking that it would be of service to him. De l'Epée was about to refuse it, on the ground that he did not read Spanish, but, opening it, he saw a picture of the manual alphabet, and found that the title of the book was *The Art of*

*Teaching the Dumb to Speak.* This was Bonet's book, written a hundred years before. De l'Epée immediately paid the stranger the price asked for the book, and he could scarcely wait until the end of the lesson period to begin at once to master Spanish. Soon afterwards he also procured Amman's treatise, and "by the light of these two excellent guides," proceeded to teach speech to his pupils. "Their works are two torches," he says, "which have lighted my footsteps."

In 1771, de l'Epée invited the public to visit the school and witness the progress his pupils had made. This display was held in his house, No. 14 Rue des Moulins, in the Quartier Sainte Roche, a building which stood there until 1876, when it was torn down. This public exhibition was so well attended that de l'Epée repeated it each year. In 1776, his school harbored thirty pupils. It was then that he wrote his famous declaration:

"The world will never learn to make eyes and fingers travel post haste in order to have the pleasure of conversing with the deaf. The only way of totally and entirely restoring those in this predicament to society is to teach them to understand what is said by their sight, and to express their own ideas and sentiments with their voice."

Pupils crowded in upon him, however, until he was so overburdened with work that he was unable to sustain the ideal he had set for himself, and was compelled to revert to the manual alphabet in order to teach all those who came to him for instruction. He refused the children of wealthy parents, because the time required to teach them speech would be taken from his

beloved poor, and he could not train helpers fast enough to cope with his growing institution. All this while he supported all the pupils out of his own income of fifteen thousand francs a year; fed, housed, and clothed them. Sometimes he had as many as seventy-five children under his care at one time, distributed among four or five boarding houses and brought to his home for lessons.

The monument to de l'Epée, which now stands in front of the Institution for the Deaf in Paris, shows on three sides bas-reliefs of the three most famous incidents in the course of his life work. The first is his meeting with the deaf sisters. The second shows him surrounded by his pupils who are entreating him to have a fire in his room. He has denied himself all physical comfort in order to have money to carry on his school, and his health has broken down under the strain. During a severe winter, he yields to their importunities, but at the same time reproaches himself: "My poor children, I have wronged you of a hundred crowns." The third relief depicts the visit of the Emperor Joseph II of Austria to the school.

Joseph II, shocked that a man engaged in such a work should be hampered by lack of money, offered to bestow upon him the revenues of one of his estates in Austria. To this de l'Epée replied,

"I am now an old man. If your Majesty desires to confer any gift upon the deaf and dumb, it is not my head, already bent toward the grave, that should receive it, but the good work itself. It is worthy of a great prince to preserve whatever is useful to mankind." The

Emperor divined his wishes, and on his return to Austria, dispatched a priest, the Abbé Storck, to receive instructions from de l'Epée. In 1779, the first public institution for the deaf was established in Vienna. Joseph interested his sister, Marie Antoinette, in de l'Epée's work, and the kind young Queen in her turn interested the King. In 1775, the year before the riots for bread, Louis XVI took the school under his protection, and granted a small subsidy.

De l'Epée trained a number of teachers who came to him from other countries. In addition to the Abbé Storck from Vienna, there were the Abbé Sylvester from Rome, the Abbé Ulrich from Zurich, and "a female sent by the Archbishop of Turin in order that she might be taught how to instruct the indigent deaf and dumb of his diocese in the elements of our religion." In 1784 de l'Epée published a complete exposition of his methods, *La Véritable Manière d'instruire les Sourds et Muets, Confirmée par une Longue Experience*. His name does not appear on the fly-leaf, which states only that the book is "*par M. l'Abbé . . . . Instituteur des Sourds & Muets de Paris.*"

Many romantic stories accumulated with reference to the gentle Abbé and his pupils. One of these, which was based on an actual occurrence, was made into a play by Jean Nicolas Bouilly, and was translated into English and German, and produced a number of times very successfully. The English version, by Thomas Holcroft, was called *Deaf and Dumb*. John Philip Kemble played the part of de l'Epée. The story concerned the deaf child of wealthy parents who had been

robbed of his estates, set adrift in Paris, and rescued and educated by de l'Epée. After he had been instructed for some years, de l'Epée sent him out with a companion to wander through France, in the hope that his vague memories of his home would lead him back to the parental estate. The youth did come upon and recognize his family home in Toulouse, then in the hands of the uncle who had abandoned him. In the play he is restored to fame and fortune. In real life, the law's delays were brought to bear on the case by the uncle, and the young man, despairing of success, enlisted in Napoleon's army and was killed.

De l'Epée was assailed by both Pereire and Samuel Heinicke, the great German instructor of the deaf. When Heinicke heard that the Abbé Storck had been sent to France to be taught de l'Epée's method, he wrote to Storck assuring him that "the Parisian method of tuition is not simply of no use, but absolutely detrimental to the advancement of the pupils." Pereire also publicly condemned de l'Epée's use of the manual alphabet. De l'Epée in great distress invited them both to visit his school and witness the work of his pupils, but neither accepted, and the war of methods, thus begun, waged bitterly for a century and a half, and is still going on.

De l'Epée's stand in favor of the manual alphabet was not based on any antipathy to articulation, as he bears witness in the work he published in 1776, and yet he had come to regard speech as a purely mechanical operation, having no relation to intellectual or spiritual activities. His preoccupation with the religious needs

of his pupils was one of the things that made him impatient with the slower speech methods. The chapter in his book which deals with imparting religious ideas to the deaf is the most notable of all his works.

The school weathered the Revolution, but de l'Epée died before it was placed on a firm foundation under government subsidy. For some years after his death in 1789, his name was almost forgotten, as his successor, the more aggressive Sicard, took over the work. But gradually de l'Epée's reputation began to increase, and at last he was accorded his rightful importance as the initiator of real philanthropy in behalf of the deaf.

In October, 1912, people gathered from all over the world at the National Institution for the Deaf in Paris to do him honor. "These numbered hundreds of men and women, French, English, Americans, German, Japanese, Roumanian, Turkish, and so on without end. The smart hats of the fashionable ladies neighbored with the waving caps of the Sisters of Mercy; the black gowns of the French priests with the frock coats of the gentlemen; the blouses of the peasants with the jackets of the workmen."

In 1790, the Abbé Sicard (1742-1822), who had been trained by de l'Epée and had been teaching a branch school at Bordeaux, came to Paris to carry on de l'Epée's work. The Paris school was moved to the Convent of the Celestins, where it remained until 1794. Sicard became the most eminent teacher of his time. He developed and improved de l'Epée's method, to which he brought a more philosophical comprehension than that of the gentle and pious originator. Sicard used the



manual alphabet, writing, and methodical signs in instructing his pupils, and did not attempt to teach speech.

During the Revolution, Sicard was arrested as a suspect and imprisoned. His pupils in deepest distress gathered to send him aid, and sent one of their number to appear before the bar of the National Assembly with a petition for his release. Its wording is graphic:

“Mr. President:

They have taken from the deaf and dumb their instructor, their guardian and their father. They have shut him up in prison, like a thief, a murderer. But he has killed no one, he has stolen nothing, he is not a bad citizen. His whole time is spent in teaching us to love virtue and our country. He is good, just, pure. We ask of you his liberty. Restore him to his children, for we are his. He loves us with a father’s fondness. He has taught us all we know. Without him we should be like the beasts. Since he was taken away we have been full of sorrowful distress. Return him to us and you will make us happy.”

This petition secured an order for Sicard’s release, but the order was not promptly carried out, and Sicard fled from Paris. It was two years before he saw his pupils again. When Bonaparte came into power, Sicard returned safely to his work and in 1794 the school was subsidized by the government and was moved to the Seminary of Magloire, where, as the National Institution of the Deaf, it still remains.

During the Hundred Days, Sicard again fled from Paris, leaving the Institution in disorder. The Baron De Gerando, who had long been a friend of the school, took up his residence there, and maintained the work

until Sicard returned. De Gerando (1772-1842) was a well known philanthropist who held important positions of state under Napoleon. He became interested in the education of the deaf, and in 1827 published a lengthy work, *De l'Education des Sourds-Muets de Naissance*. This was one of the earliest comprehensive works on this subject, and it was frequently quoted by later writers. De Gerando regarded writing as the basis of instruction, considering that lip-reading and speech were useful rather than necessary.

While France was gravitating to a preference for the manual method of teaching, Samuel Heinicke (1729-1790) was uncompromisingly asserting, in Germany, the superiority of speech and lip-reading. Heinicke, who was born at Nautzschutz, was the son of a poor farmer. To escape an undesirable marriage and the monotony of agriculture, he entered the service of the Elector of Saxony as a member of his bodyguard, and fought through several campaigns. During the Seven Years War, he was taken prisoner, but escaped and went to Jena, where he enrolled in the university. He was in turn teacher, singing-master, private secretary, and finally instructor of the deaf. He had several times during his varied life become interested in deaf children and attempted to teach them, and in 1772 he gathered together a small private school at Eppendorf. The Emperor of Saxony invited him to Leipsic, and in 1778 Heinicke arrived with nine pupils and opened a school which is still continued.

Heinicke maintained some secrecy in regard to his teaching. His controversial letters to de l'Epée are the

chief source of information we have concerning his work, although he published a few pamphlets. His method was entirely oral. He had a very high opinion of it himself.

"No other method can compare, either in point of facility or solidity with that which I have invented and now practice," he wrote to de l'Epée in 1782, "for mine is built entirely on articulate vocal language, and upon taste, which supplies the place of hearing . . . . My deaf pupils are taught by a slow and easy process to speak both their vernacular tongue and foreign languages with a clear and distinct voice, from habit and from understanding, just as well as those who enjoy the faculty of hearing . . . . The method which I now pursue in the tuition of the deaf and dumb was never known to any one besides myself and son. The invention and arrangement of it cost me incredible labor and pains, and I am not inclined to let others have the benefit of it for nothing. By right the publication of it should be purchased of me by some prince, and I defy all the casuistry in the world to argue me out of money that I lawfully and laboriously gain. Such of the deaf and dumb as are poor, I instruct gratis, while I make the rich pay in proportion to their wealth, and I often receive more than I demand."

His pupils, he stated, "acquire conceptions and proceed from the sensible to the intellectual. In a word, they think in sensations acquired by art, and by representations of things cohering with these sensations." He had confused the sense of touch, by means of which all the congenitally deaf acquire their knowledge of sound, with the sense of taste, and he had evolved a peculiar theory of taste as a substitute for hearing in the perception of sounds. For instance, he would give his

pupils pure water for *a*, wormwood for *e*, vinegar for *i*, olive oil for *u*, etc., the better to fix these sounds in memory.

Two of Heinicke's strongest convictions were evidenced by his repeated insistence,

1. That clear thought is possible only by speech, and, therefore, the deaf ought to be taught to speak.

2. The deaf can understand the speech of another from the motion of the lips.

Heinicke's sons-in-law took over his work at his death, and one of them founded the school for the deaf in Berlin, but the influence of de l'Epée and the fame of his method had reached them, and they began to favor the use of the manual alphabet. Heinicke's method, which he guarded so jealously, might be said to have died with him, but in the early part of the nineteenth century Friedrich Hill reinstated oralism in Germany, which remained for years the foremost country in the world in teaching speech to the deaf.

Friedrich Moritz Hill (1805-1874), a native of Breslau, was one of the greatest of all the educators of the deaf. He condemned signs and the manual alphabet, and brought speech and language teaching to such a high degree of perfection that his ideas revolutionized the education of the deaf in Germany, and, finally, in America.

#### BIBLIOGRAPHY

Arnold, Thomas. Education of Deaf Mutes.

De Gerando, Marie Joseph, Baron. De l' Education des Sourds —Muets de Naissance, 1827.

DeLand, Fred. A German Contemporary of De l'Epée, *Volta Review*, February, 1920.

- DeLand, Fred. The Abbe de l'Epée, *Volta Review*, January, 1917.
- De Haerne, Monseigneur D. Heinicke's Method of Impressing the Memory, *Annals*, vol. XVIII, 124, 1873.
- De l'Epée, Charles Michel. La Veritable Maniere d'instruire les Sourds et Muets par M. l'Abbe de l'Epée, Paris, 1776.
- Dupont, Marius. The Abbe de l'Epée and the Teaching of Speech, *Annals*, October, 1898.
- Farrar, A. Introduction to Arnold's *Education of the Deaf*.
- Montague, Harriet. Deafness in Plays and Stories, An Old Melodrama, *Volta Review*, July, 1929. p. 354.
- Peet, Edward. Sketch of the Life of Baron De Gerando, *Annals*, IV, p. 178. April, 1852.
- Pitrois, Yvonne. The National Institution for the Deaf in Paris, *Volta Review*, March, 1913.
- Porter, Samuel. De l'Epée's Birthday, *Annals* IX, p. 160, 1857.
- Rae, Luzerne. The Great Peril of Sicard, *Annals*, I, p. 16, 1847.
- Rae, Luzerne. Sketch of de l'Epée, *Annals*, I, p. 69, 1848.
- Rae, Luzerne. Sketch of Heinicke, *Annals*, I. 166, 1848.
- Ziegler, Clara M. An Outline History of Speech Reading—unpublished.

## CHAPTER VII

### ENGLAND AND AMERICA

In 1760, Thomas Braidwood (1715-1806) "undertook at the earnest solicitation of a rich merchant of Leith, to carry on into effect the plans of instruction given in the *Philosophical Transactions*." These "plans of instruction" were the old letters and treatises written for the *Philosophical Society* by Wallis, Holder, and Dalgarno. Braidwood, a native of Scotland and a graduate of Edinburgh University, had opened a "mathematical school" in Edinburgh, but when Charles Sheriff, the son of the "rich merchant," was brought to him to be taught writing and mathematics, Braidwood undertook also to teach him to speak. His success was so pronounced that other pupils came to him, and Braidwood began to teach the deaf exclusively, associating his son, John, with him in the work. In 1783 the school was moved to Hackney, London, "where it was carried on by Thomas' widow and son after his death, and by the son's widow after the death of both of these."

Braidwood's work attracted the attention of the most eminent men of his time; such men as Lord Monboddo, the philologist; Thomas Pennant, the traveller, and Dr.



Johnson. Pennant, in his "Tour Through Scotland," describes a visit to "the extraordinary professor's school" in Edinburgh. "Mr. Braidwood first teaches them the letters and their powers," he wrote, "and the idea of words written, beginning with the most simple. The art of speaking is taken from the motion of his lips, his words being uttered slowly and distinctly." Mr. Pennant was introduced to "a most angelic young creature, of about the age of thirteen," who "looked him through and through" with her piercing eyes, and "conversed with him viva voce with the utmost facility." In his *Journey to the Western Islands of Scotland*, Dr. Johnson refers to a visit paid to the school.

"There is one subject of philosophical interest to be found in Edinburgh, which no other city has to show; a college of the deaf and dumb, who are taught to speak, to read, to write, and to practice arithmetic, by a gentleman whose name is Braidwood . . . . This school I visited and found some of the scholars waiting for their master, whom they are said to receive at his entrance with smiling countenance and sparkling eyes, delighted with the hope of new ideas . . . . The improvement of Mr. Braidwood's pupils is wonderful. They not only speak, write, and understand what is written, but if he that speaks looks toward them and modifies his organs by distinct and full utterance, they know so well what is spoken that it is an expression scarcely figurative to say they hear with the eye . . . . It was pleasing to see one of the most desperate of human calamities capable of so much help . . . . After seeing the deaf taught arithmetic, who would be afraid to cultivate the Hebrides?"

But the chief authority in regard to Braidwood's school is an American, Francis Green, who sent his deaf

son, Charles, to Braidwood in 1780, and himself visited the school the following year, remaining some weeks. In 1785 he made a second visit to his son, and was so much gratified by his progress that he went to London and began an agitation for a free school for poor deaf children. In aid of this movement, he published an exposition of Braidwood's methods. This was the earliest publication by any American on the education of the deaf.

The book was called *Vox Oculis Subjecta*, after the Braidwood motto, and the title page shows the Braidwood crest, a bird charmed by a serpent. The subtitle explains that the work is "A Dissertation on the most curious and important art of imparting speech and the knowledge of language to the naturally deaf and (consequently) dumb; with a particular account of the Academy of Messrs. Braidwood of Edinburgh."

Mr. Green had gone into the subject as thoroughly as he could considering that the Braidwoods guarded their methods carefully, and did not publish anything themselves. He had evidently procured Amman's book, as well as those of Wallis and Holder, extracts from which he publishes in his volume. He also quotes largely from Bulwer. He is enthusiastically in favor of lip-reading.

"To realize," he says, "that those who have never heard a sound and still continue deaf should be capable of uttering articulate expressions with grammatical accuracy, of chusing the most proper words to convey their ideas, both in speech and in written language; and not only so, but 'to hear with the eye,' or (in other words) to be so acquainted with the various positions

of the organs of speech as to be enabled (generally) to know what is spoken by another, only by looking steadily at the countenance of the speaker, is really so difficult and astonishing that the incredulity of the world herein is not much to be wondered at. All this, however, I myself have been actually (with raptures) a witness to . . . . I say generally they understand what is said, because it is impossible to know infallibly . . . . because of equivocal words, which, if unconnected with others, the sense cannot be determined absolutely even by those who hear."

There is a copy of this book in the Volta Bureau library, which was presented to Dr. Bell by Dr. Samuel A. Green, of Boston, a grandson of Francis Green. The margins are filled with notes in the hand of the author.

The whole volume is a generous and enthusiastic tribute to the Braidwoods and their ability. It represents the last time Mr. Green referred to them in eulogistic terms, for the publication of the book, which he had evidently undertaken without consulting them, angered the Braidwoods, and though his son remained in the school, Mr. Green returned to America, and, for the time being, ceased his efforts in behalf of a public school in England.

Three generations of Braidwoods taught the deaf, maintaining schools in Edinburgh, in London, and in Birmingham. They have been charged with maintaining a monopoly of teaching the deaf in England, but this is hardly fair. They were the only ones in their province, which they filled admirably, and they were possessive about their work, but their possessiveness is not so important as the fact that they kept the oral method

alive and flourishing in England at a time when the manual alphabet was the chief method used in Germany and France.

Dr. Joseph Watson (1765-1829), a nephew of Thomas Braidwood, became principal of the "Asylum for the Deaf and Dumb" in the Old Kent Road, London, the first English public school for the indigent deaf. He published (in 1810) a book which was based on the Braidwood method, in which he gave his ideas of language teaching, and insisted on the importance of articulation for the deaf.

In the meantime, Francis Green had transferred his interest to the Abbe de l'Epée and Sicard, and was busy translating de l'Epée's book into English. Charles Green died in 1787, but his father continued his interest in the deaf, and made an effort to start a school in America. In 1803, he published in the *Palladium*, a Boston newspaper, "A Card to the Reverend the Clergy of every persuasion and denomination of the State of Massachusetts," asking all ministers to send him the names of all deaf and dumb persons in their parishes. This "Card" appeared three times, and as a result Green received the names of seventy-five deaf persons in Massachusetts. This was the first census of the deaf in America.

Mr. Green's son was not the only American child in the Braidwood school. Major Bolling of Cobbs, Chesterfield Co., Va., a descendant, by the way, of Pocahontas, had three deaf children, John, Thomas, and Mary. He sent them all to Braidwood, from whom they received a good education and were taught speech and

speech reading. His hearing son, William, transmitted the family deafness to his two children, William Albert and Mary.

Col. William Bolling was on the point of sending William Albert to England when he learned that John Braidwood, a grandson of the celebrated Thomas Braidwood, was in America. He wrote and invited the young man to come to Virginia and start an oral school. Braidwood's idea had been to open an institution in Baltimore, and he had advertised in the *Richmond Enquirer* for pupils. Col. Bolling agreed to send his son to the Baltimore school, and waited impatiently for news of its opening. Instead, he received word that Braidwood was in jail in New York, having been imprisoned for debt. Col. Bolling was so anxious to obtain his services that he paid the debt and established the irresponsible young man in his family as private tutor.

The little class at Bolling Hall continued for over two years. Then, as other parents wished to enter their children, the school was moved to Cobbs, Va., and was opened as a semi-public school in 1815. Col. Bolling had turned over to Braidwood the family estate at Cobbs, with a large house and furniture, and had offered him a salary in return for teaching "four or five young gentlemen." Some of these pupils bore illustrious names. One was a John Hancock.

In the Volta Bureau library is a manuscript exercise book containing notes of the language work done in the school. It belonged to William Albert Bolling and is partly in his handwriting and partly in that of another

person, probably Braidwood. It shows a methodical plan of language teaching:

A shoemaker is a person who makes shoes.

Shoes are a covering for the feet.

Shoes are made of leather.

Leather is tanned hides.

Hides are the skins of animals.

I wear 2 shoes at one time.

Two shoes are called a pair of shoes.

I have only one pair of shoes at present.

They are old.

A cobbler is a person who mends shoes.

To mend shoes is to repair them when they fail.

A tailor is a person who makes clothes.

Clothes are made of cloth.

All the kinds of cloth may be comprehended under 4,  
viz: silk, cotton, woollen, and flax-linen.

Silk cloth is made of silk.

Silk is thread made by silk worms.

A worm is an insect or animal.

and so on.

Some of the exercises consist of questions and answers, evidently intended for language work, though they may have been used for lip-reading.

What is the name of this place? Cobbs.

Can you see the River from the house? Yes, Sir.

Is the River near the house? Yes, Sir.

What is the name of the River you see? The Ap-  
pomattox.

Do you see many vessels in the River every day?

Yes, Sir.

Are there any ships in the River now? Yes, Sir.

Where are they laying? At Broadway.

How many are laying at Broadway? One.



Have you been walking this morning? Yes, Sir.  
What have the people been doing this morning? The people have been killing the hogs this morning.  
How many hogs did you see killed? Four.  
Was my overseer there? Yes, Sir.  
Are the hogs cut up? Yes, Sir.  
What did the overseer do with the pork after it was cut up? I do not know.  
How many oxen have I? Two.  
How many sheep and lambs have I? Eight.  
How many negroes have I? Twelve.  
How many cows have I? Three.  
Where does the Governor of Virginia live? In Richmond.  
What is the Governor's name? Wilson Carey Nicholas.  
Did you see him when you were in Richmond? No, Sir.  
What is the name of the President of the United States? Mr. James Madison.

The phrase "understand language" was used in the sense of speech reading, in which William Albert was apparently not an adept.

Do you like to be asked questions? I like to be asked questions very much, as it makes me understand language.

Do you understand every question that is asked you? I do not understand many questions that are asked me.

Are you not sorry you do not understand language well? I am very sorry I do not understand language well.

What came you here for? I came here to learn to speak, read, write, and understand language.

Braidwood had everything in his favor, a wealthy patron, a school already established, and the promise of all the pupils he could teach, but his dissipation soon led him into debt again, in a period when debt was a serious matter. He left Virginia abruptly, and went to New York, only to wander back, a year later, again to ask help of Col. Bolling. A new school was started in Manchester, Va., this time under the Rev. Mr. Kirkpatrick, with Braidwood as assistant. When Braidwood's "irregularities" once more got the better of him, Mr. Kirkpatrick carried on the school alone, and William Bolling's little exercise book shows continued progress in language under his new teacher.

At this time he began to write daily compositions in the form of a diary:

"This morning John Hancock caught Mrs. McRae's little black boy Peter and brought him into the porch. Mr. Harris took him and put him in the closet and shut the door. Mr. Harris then went and Got a rod and went into the closet and whipped Peter for throwing stones. Peter promised he would not throw any more stones, and Mr. Harris told him to put on his clothes and go home and be a good boy."

"When I got up on Saturday I put on a clean shirt and Cravat and dressed myself to go to Richmond. After breakfast I walked to Richmond with Mr. John Hancock. I went to see my Aunt Robertson, she was happy to see me, she is well . . . .

"One Saturday Evening my Aunts took me to the public gardens. Many people were there, we had Ice Creams to eat—I like Ice Creams very much."

There is, toward the end, a memorandum concerning a hard of hearing pupil who was received at the school:

"Mr. Flournoy has lost his Hearing. He was born hear and he is Deaf and he can talk."

The last mention of John Braidwood in the notebook was written June 25, 1818:

"It is five minutes past three o'clock. Mr. Braidwood has not come into school."

The little notebook continues through the first part of 1819. After this there is no record to show how long Mr. Kirkpatrick continued to instruct the deaf. Braidwood died in 1820.

### BIBLIOGRAPHY

Arnold, Thomas. Education of Deaf Mutes.

Baker, Charles. Sketch of Thomas Braidwood, *Annals* III, 255.

Bell, Alexander Graham. Sketch of the Life of Francis Green, *Association Review*, April, 1900.

Bell, Alexander Graham. Historical Notes Concerning the Teaching of Speech to the Deaf, Documents, clippings, and letters, relating to early American Schools. *Association Review*, 1900.

Farrar, A. Introduction to Arnold's Education of the Deaf.

Green, Francis. *Vox Oculis Subjecta*, A Dissertation on the most curious and important Art of Imparting Speech and the Knowledge of Language to the naturally Deaf and consequently Dumb: with a particular account of the academy of Messieurs Braidwood of Edinburgh: And a proposal to perpetuate and extend the benefits thereof, London, 1783.

Green, Samuel A. Sketch of Francis Green, *Annals*, XIII, p. 1.

Johnson, Samuel. A Journey to the Western Islands of Scotland.

Pennant, Thomas. Tour in Scotland.

## CHAPTER VIII

### THE BEGINNING OF ORGANIZED WORK FOR THE DEAF IN AMERICA

The Virginia school failed, partly because of the dissipation and dereliction of young Braidwood, but chiefly because it had not enough public support. There was no one with force enough to bring the need for a school of this character strongly to the attention to the legislature and people of the state.

For the same reason, a little school which was started still earlier in New York City had to wait ten years for its real beginning, although it was conceived in the mind of a philanthropist as far back as 1807. At that time, the Rev. John Stanford, who was chaplain to the Humane and Criminal Institutions in the City of New York, became interested in some deaf and dumb persons in the almshouse of New York City. Although he knew nothing of methods of instructing the deaf, he formed them into a class, bought slates and pencils, and began teaching them to write. So the very first school for the deaf in America was in a poor house. Changes in the establishment forced Mr. Stanford to give up his undertaking, but when, ten years later, some benevolent

citizens of New York organized to start a school for the deaf, they met in his house, and from this meeting grew the New York Institution for the Deaf.

Others had been at work to the same purpose, and a year before the New York school was formally opened, the Connecticut Asylum came into actual being, with seven pupils. This, which was the first institution for the deaf in America, grew from the effort of Dr. Mason Cogswell of Hartford, Conn., to help his little daughter, Alice. Alice was born in 1805, and lost her hearing from "spotted fever," when she was two years old. Although Dr. Cogswell had heard vaguely of schools for the deaf abroad, he was not willing to send his child to England or France, and the whole family and their friends, tried to help in the work of making her understand language.

Thomas Gallaudet, a neighbor of the Cogswells and a student at Andover Academy, became interested in the little girl. So strong and immediate was his desire to help her that he set about teaching her the first time he saw her playing with some other children in his father's garden. He found that if he wrote a word and showed her an object, he could teach her to associate the two. The first word he taught her was *hat*. He followed this up with other words, and her vocabulary grew rapidly. Dr. Cogswell procured a pamphlet published by the Abbé Sicard, which pictured the manual alphabet, and Mr. Gallaudet, following Sicard's ideas, became Alice's teacher in the intervals of his own college work. Another instructor was Miss Lydia Hunt-

ley, afterwards the famous Hartford "poetess," Lydia Sigourney. Mrs. Sigourney always retained an interest in the deaf, and several of her poems were addressed to them, and published in the *American Annals of the Deaf*.

Dr. Cogswell, following the initiative of Francis Green, obtained through the clergymen of Connecticut an approximate census of the deaf in the state, and learned that there were more than eighty, many of whom were young enough to be educated. He called a meeting of his neighbors and friends on the 13th of April, 1815, to consider what could be done for these deaf children. In one day enough money was subscribed to send some one to Europe to "acquire the art of instructing the deaf and dumb." There is still hanging in the library of the Hartford School a list of the subscribers to the enterprise, and the amount of money each agreed to give. Thomas Gallaudet, who was now twenty-eight and an ordained minister, was selected for the journey. He sailed May 20, 1815, and landed in Liverpool June 25.

He presented himself at the London school, but he did not endear himself to the Braidwoods by proposing to remain a few months at their school to learn their method and then to combine it with the sign method as taught by the Abbé Sicard, selecting what he chose to use of each. The war of methods, started between the Abbé de l'Épée and Heinicke, was intense. The Abbé Sicard was at this time in London, delivering a series of lectures, and to him Gallaudet stated his prob-



lem. Sicard promised him every aid and facility at his school in Paris.

Cross purposes were at once established between Gallaudet and the Braidwoods. John Braidwood was then in Virginia starting a school, and his mother and brother were not anxious to help some one else set up a rival establishment in America, yet they were willing to give Gallaudet an opportunity to learn their method. The sub-committee of the London school proposed that Gallaudet establish himself in the school for a three years' residence. They offered to employ him for this length of time as an assistant on a salary. He was not willing to sign an agreement to remain under the conditions proposed: "To be with the pupils from seven o'clock in the morning till eight in the evening, and also with the pupils in their hours of recreation."

He also declined the offer of Dr. Watson to send one of his assistants to America, "lest my plans for instruction and government might clash with this assistant's. He would be wedded to Dr. Watson's mode. I should wish, and I yet hope, to combine the peculiar advantages of both the French and English modes of instruction. For there are considerable differences between them."

Dr. Watson, Mr. Gallaudet wrote to his sponsors in America, "always talks of the length of time that would be necessary to acquire his art, and generally speaks of four or five years." Gallaudet expected to acquire this art in "several months, perhaps more than a year." "Shall I be treated like a mere apprentice, whom his master must chain by indentures lest he make his es-

cape?" he asks. "In Edinburgh is a very respectable school under *noble* patronage, of which a Mr. Kinniburgh, the instructor of the school, received his first instruction in his art from Mr. Thomas Braidwood, the grandson of the original Mr. Braidwood, to whom he bound himself not to communicate any information respecting the subject to any individual for seven years. . . . I have been corresponding with Mr. Thomas Braidwood on this subject, in hopes that I might prevail on him to release Mr. Kinniburgh so far as his bond might refer to America. But Mr. Braidwood is not to be moved."

All this correspondence is full of human interest. Gallaudet was having a difficult time in every way. His letters are filled with protests, not only against the Braidwoods but against his treatment by the American sponsors, who have not, he considers, allowed him enough money to travel with dignity and to purchase necessary books. He solaced his period of waiting by preaching many sermons from various Scotch pulpits, and spent his leisure studying the French sign method.

Little Alice Cogswell, who was continuing her work with Miss Huntley, wrote him several quaint letters at this time. These are very interesting as indicative of the educational progress of one of the first deaf children in the United States to receive instruction.

Hartford, Wednesday, October 11, 1815.

My dear Sir:—

I remember story Miss Huntley was tell me. Old many years Mr. Colt little boy Name man Peter Colt very much curls. Little boy hair Oh! very beautiful

mama lap little boy comb curl love to see O beautiful.  
Morning long man preacher coat black come bow ask  
mama give little boy hair make wigs very beautiful  
preacher give mama no preacher yes oh yes talk long  
man say come back little boy scissors cut hair white hair  
curls all in heap make wig preacher am very much glad  
proud little—little boy head very cold mama tie hand-  
kerchief warm, tears no more mama very sorry. I hope  
my hair never cut make wigs—This morning study all  
in school away Geography all beautiful all very beautiful  
very still very good noise no—the Play no. Miss Hunt-  
ley work and two go Norwich all school come not—me  
very sorry come back little while—O all very glad O  
beautiful—I love you very much—

Your affectionate,

ALICE COGSWELL.

Mr. Gallaudet severed negotiations with the Braidwoods, and arrived in Paris on the 9th of March. Within three days he was cordially received by the Abbé Sicard, and was placed at once in training. He attended various classes, and received private lessons from one of the pupil assistants, Massieu. At the end of two months, Gallaudet decided to return to America, as Laurent Clerc, a deaf and dumb teacher in the school, had offered to accompany him and help him start the Hartford institution. So, after only fourteen weeks' training, Mr. Gallaudet returned to America, to embark on the intricate business of opening a school for the deaf.

The interest manifested in the new undertaking was very great. In 1816, with the exception of a small hospital for the insane in Virginia, no public charitable

institutions of any sort existed in our country. The supporters of the Hartford school had secured an act of incorporation from the legislature of Connecticut and had raised a considerable sum of money by private subscription, but not enough to warrant opening the school. The solicitation of funds became Mr. Gallaudet's first work. With Laurent Clerc, he visited New York, Philadelphia, Boston, and other towns, to plead the cause of the deaf. In October, 1816, the legislature of Connecticut granted \$5000 in aid of the enterprise, which is believed to have been the first appropriation of public money made in America in behalf of any benevolent institution. Mr. Gallaudet enlisted the support of prominent men in various parts of the country, and from them secured more than \$10,000. When the school finally got under way, approximately \$17,000 had been donated.

The organization of the school was not easy. So many difficulties arose, particularly in the matter of household management, that as the time for the opening approached and things were not yet in shape, the harassed directors appointed a day on which "divine assistance should be invoked." On the fifteenth of April, 1817, the "birthday of organized philanthropic effort in America," the school was opened with seven pupils. The Sunday evening following, just two years after he had agreed to devote himself to this enterprise, Mr. Gallaudet delivered a discourse before a crowded audience, taking as his text the words of Isaiah, "Then the eyes of the blind shall be opened, and the ears of the deaf unstopped."

By the winter of 1818 so many pupils had been entered at the school it was thought best to solicit the aid of Congress, and Laurent Clerc visited Washington. He made a very favorable impression and his cause was sponsored by several members of the national legislature, among whom was Henry Clay, then speaker of the House. An act was passed appropriating a township of wild land, more than 23,000 acres, from the sale of which an endowment for the institution was ultimately realized, amounting to more than \$300,000. In 1821 the school was permanently established in buildings and grounds of its own. The name had been changed to "The American Asylum for the Deaf," as it was believed at that time that all the deaf in the country could be cared for in Hartford.

Mr. Gallaudet visited the capitals of the New England states, exhibiting his pupils. In 1819 Massachusetts provided for the education of her deaf children in the Connecticut Asylum. New Hampshire and Maine soon followed. Rhode Island came into the same arrangement in 1848. In 1834 South Carolina and Georgia began sending their deaf children to the Connecticut school "until the public mind is ripe for the establishment of institutions nearer home."

New York opened its own school in May, 1818. Articulation was taught at first, but the Sicard method promulgated by the Hartford School was soon adopted. The Pennsylvania Institution originated as a private philanthropy with Mr. David Seixas, a Portuguese Jew, who found some deaf children wandering in the street like stray puppies, and began teaching them in

1820. A year later the school was incorporated and financed by the state legislature. At this time Laurent Clerc went there and stayed six months to organize the school and train the teachers.

Gallaudet and Clerc travelled periodically over the country exhibiting classes of pupils. The spectacular appeal of the sign method and Clerc's intelligence and unusual attainments made a strong public impression. The idea was firmly fixed in the minds of the American people that "the beautiful language of signs" was essential to bring knowledge and understanding to the deaf. The Hartford school vigorously fostered this idea. Signs offered a medium of communication whereby knowledge could be imparted to the deaf without undoing the alleged work of Providence. For it was held that if Providence had intended the deaf to speak, dumbness would not have been inflicted on them as well as deafness. Also, sermons could be preached in signs, and thus the religious instruction of the deaf be commenced at an early age, whereas serviceable speech and lip-reading required years to attain.

Men who clung passionately to such opinions were sincere and conscientious, and while we may wish they had had more vision we must not overlook the amount they accomplished. They broke the ground of a new field. They made the education of the deaf, in however limited a fashion, possible. A history of the first schools for the deaf, if it were written not in terms of dates and numbers, but in human endeavor, would read like a sturdy romance of the pioneers.



Perhaps the most picturesque beginning of all was that of the Kansas School, which was started by a hard of hearing man, Philip Emery, who had drifted out there from Indiana in 1860. He had been a teacher in the Indiana school, and when he heard that there were several deaf children near Lawrence, Kansas, he rented a little one-story frame house in "Waukarusa Bottom," at \$5 a month, fixed up a board table, procured some chairs and straw mattresses, and opened his school. The circular which he issued was more pretentious than the establishment warranted:

"Behold The Educational Miracle Of The 19th Century  
The Deaf Hear, the Dumb Speak, and the Blind See  
Kansas Deaf-Mute Institute

\* \* \* \*

"We have opened a school for instructing the Deaf Mutes of Kansas, and also Nebraska, New Mexico, Colorado, and Indian Territory, at Baldwin City, Douglas Co., Kansas. Baldwin City is located on the great Santa Fé road, fourteen miles (a little southeast) from Lawrence. The location is beautiful and healthy, has a large stone college, with good moral society and other advantages, etc."

The pupils were to pay \$2.50 a week for board and tuition, but money was very scarce, and most of the parents brought produce in lieu of cash. When the first pupil arrived,

"With her came a ham, some butter and eggs, and in a week or so a big wagon load of corn in the ear, to pay for board and tuition! The corn was dumped in a corner of the yard on the ground, where neighbors'

chickens and pigs and rats found a ready access to it, for there was no demand in the village for it at any price, and it was no use to us as we had no horse, no cow, no pig, nor even chickens."

The following year the state legislature made an appropriation for the school's maintenance, and appointed a board of trustees. The board meetings were held in a loft over a grocery store, with the members sitting on nail kegs and soap boxes. Only one of the gentlemen was short enough to be able to stand up to make his motions without bumping his head against the rafters.

The whole country was occupied with war, but the schools for the deaf continued to grow. Public recognition of the needs of deaf children had long since become an accomplished fact. To extend this recognition so far as to embrace the possibility of teaching the deaf to speak and to read speech from the lips was a task for still another group of pioneers.

#### BIBLIOGRAPHY

- Barnard, Henry. Eulogy of Thomas Gallaudet, *Annals*, January, 1852.
- Gallaudet, Edward Miner. Life of Thomas Hopkins Gallaudet, 1888.
- Humphrey, Rev. Henry. Life and Labors of Thomas Gallaudet, 1859.
- Editorial, *Connecticut Mirror*, Hartford, August 26, 1816.
- Historical Documents Concerning the Teaching of Speech to the Deaf, *Association Review*, 1900-1905.
- Peet, Harvey. Tribute to the Memory of the Late Thomas H. Gallaudet, *Annals*, January, 1852.
- Walker, S. T. History of the Kansas Institution to 1893.

## CHAPTER IX

### THE BEGINNING OF THE ORAL METHOD IN AMERICA

In 1793 there appeared in the Transactions of the American Philosophical Society an essay by Dr. William Thornton, "On the Mode of Teaching the Deaf, or Surd, and consequently Dumb, to Speak." This was the first work published in America on the subject of deafness. It was an appendix to a prize essay on Speech, for which the society had awarded the author a gold medal. Dr. Thornton was a gentleman of greatly varied talents, a traveler, an essayist, an patron of art and artists and also of inventors, the designer of the National Capitol, and the founder of the United States Patent Office. He was very prominent in Washington during the early part of the century. It was said of him that he was "full of talent and eccentricity," and that his "company was a complete antidote to dullness." There was nothing dull in his approach to the subject of speech for the deaf. He exhibited a clear knowledge of various methods of teaching, and was especially convinced of the value of lip-reading.

"To know what others say when they converse with or ask him any questions: This is the most difficult in teaching the surd, because most of the letters are formed in the mouth and throat, out of sight . . . but there are

more guides in acquiring what words are spoken by others than people in general imagine; for so many of the letters which make a visible effect upon the organs in their formation enter into the composition of words which may, indeed, contain many that do not make much effect, that if all the former were written down, it would give to the eye a kind of short-hand; and is almost as easily caught by the watchful eye of the attentive deaf, as short-hand without vowels is read by the experienced stenographer. Both arts require long practice, but are very attainable."

It was more than seventy years after this was published before lip-reading was attainable by the deaf in America. From time to time there were faint outbursts of dissatisfaction with the sign method, but these subsided before the determined efforts of its advocates to keep it in vogue. In 1843, Mr. Horace Mann, secretary of the Massachusetts Board of Education, and Dr. Samuel Gridley Howe, the director of the school for the blind, who had taught Laura Bridgman, went to Europe to study systems of education. They visited schools in Germany, and were surprised to find deaf children speaking and reading the lips. On their return, Horace Mann published a report, strongly advising the use of this system in America. The report made such an impression that a few parents began to demand articulation for their deaf children, and a half hearted effort was made to introduce it into the Hartford School. But the agitation for speech and lip-reading soon died out, and in 1860 there was not a teacher of articulation in America.

About that time three little girls, all of them deaf, all of them with intelligent and ambitious mothers, began to be the centers of small detached efforts to lift the burden of speechlessness from the deaf. Although all three lived within a short radius of Boston, none of these children for a time knew that the other two existed, and one of them, at least, was totally unaware of being different from other children. These three little girls were Mabel Hubbard, Jeanie Lippitt, and Fanny Cushing, and they were the small cornerstones of speech teaching for the deaf in the United States.

Mabel Hubbard had become deaf from scarlet fever when she was almost four years old. Her mother had used every means she could conceive of to preserve the child's speech, and had engaged a governess for her, Miss Mary True, a young teacher of hearing children in whom the Hubbards had discovered a remarkable ability to deal with the problems of the deaf. Miss True used lip-reading exclusively in teaching Mabel, and began to feel her way toward imparting an improved articulation. The little girl was growing up with her hearing brothers and sisters in a normal atmosphere of speech.

Jeanie Lippitt, the daughter of the Governor of Rhode Island, had also lost her hearing from scarlet fever when she was three years old. She was being taught by her mother, under the direction and encouragement of Dr. Howe, who, in spite of his failure to introduce the oral method in America, had continued to support it. The other child, Fanny Cushing, was in the care of Miss Harriet Rogers, a teacher of hearing children.

Fanny had become deaf at the age of three and a half, and when she was brought to Miss Rogers the only word she could articulate was the word "boy." Miss Rogers' sister had been one of the instructors of Laura Bridgman. The equipment with which Miss Rogers began was such help as she received from Dr. Howe, and, later, from Mrs. Lippitt. Her only knowledge of articulation teaching she had gained from a newspaper clipping about the German method, but she was giving speech to Fanny Cushing. At first Miss Rogers used finger spelling also, but after she met Mrs. Lippitt and saw how well Jeanie could read the lips, Miss Rogers depended on lip-reading in talking to Fanny.

All of these people began to work together in an effort to establish an oral school in the United States. The children contributed their share, for they served as object lessons to convince skeptics that deaf children could be taught to speak. In 1864, Dr. Howe became a member of the Massachusetts Board of Education. With Mr. Hubbard, he petitioned the Massachusetts General Court for an act to incorporate an oral school for the deaf. This move was defeated through the influence of the Hartford School.

The sign advocates denounced Mr. Hubbard as a visionary, so, in order to prove that speech and speech-reading for the deaf were practicable, he persuaded Miss Rogers to start a private school at Chelmsford, Mass. A remarkable advertisement appeared in the Boston newspapers, announcing that a school for the instruction of the deaf had been opened by Miss Rogers, and citing a long list of references, headed by the Presi-



dent of Harvard College. Mr. Hubbard gave the little school his ardent support, including the financial help without which it must have perished, for, in 1867, although there were eight pupils in the school, only two were paying full price. The school had many visitors, and several times the little pupils held public receptions, at which their attainments were exhibited. All of this increased the general interest in the war between the "French method" and the "German method" that was going on intermittently in the Massachusetts legislature. In 1866 and again in 1867 the question was agitated. There were committee meetings before which Mr. Hubbard led his little band; Miss True with Mabel Hubbard, Mrs. Lippitt with Jeanie to demonstrate and argue the possibilities of lip-reading and speech. The Hartford school put forward sign taught pupils in defense of the sign method.

When the bill was defeated again, Mr. Hubbard made a direct appeal to the Governor, who had been sympathetic at the hearings. By an extraordinary coincidence, the governor replied that he had, that very morning, received a letter from a gentleman who wished to remain anonymous; but who offered \$50,000 to aid the establishment of an oral school for the deaf in Northampton. This philanthropist was John Clarke. He had become interested in the deaf in the first place because of his own gradual loss of hearing. He later met Theresa Dudley, a little girl who was being instructed in the sign method at the Hartford School, and was anxious to have her taught to speak. Theresa's father was at that time violently opposed to the oral method.

The Governor of Massachusetts, in his message to the legislature, urged the establishment of an oral school under the jurisdiction of the state. More committee meetings were held. Members of the legislature visited Miss Rogers' school, listened to conversations between Mabel Hubbard and Jeanie Lippitt, listened to further protests from the Hartford School.

"The authorities of the school at Hartford, long accustomed to the use of the sign language, and perfectly sincere in their conviction that it was a waste of time to try to teach speech and lip-reading to the deaf, had almost persuaded the legislature to reject the measure, when Mrs. Josiah Quincy opened her mansion in Boston to a large gathering of the legislators, and gave them an opportunity to see for themselves what had been done by Mrs. Lippitt, Mrs. Hubbard and Miss Rogers. The effect of the demonstration is told by a writer in the *Springfield Republican*, March 17, 1868:

" 'Jeanie Lippitt is now fifteen, perfectly deaf, and yet able to carry on a conversation with her own family almost as rapidly as hearing children do. I never saw anything more interesting than the chat she had with Roscoe Green, a lad of eighteen, who lost his hearing at the age of seven, and who had been taught to read the lips by Miss Rogers within the last eight months. They sat eight or ten feet apart, talked and laughed about Providence (the home of both), Newport, the iron-clads there, the studies of their schools, the pleasure of vacation, etc. Neither of them could hear a word, neither of them used a sign or a letter of the finger alphabet, yet they read from each others lips the "small talk" of young people as fluently as they had

read more serious things from the lips of their teachers and friends . . . . The legislators' skepticism melted away as mine did.' "

The oralists won; Miss Rogers and her pupils were moved to Northampton to organize the Clarke School for the Deaf, which was opened in October, 1867. One of the first pupils to enroll was Theresa Dudley, whose father had been the strongest opponent of Mr. Hubbard's efforts.

Almost immediately, a member of the Boston School Board, who had attended all the hearings of the legislature and listened to the debates concerning methods, began an agitation for a branch of the Clarke School in Boston. This was not found practicable, but, thanks to this gentleman, Mr. Dexter King, an oral day school was opened in 1869. This was called the Boston School for Deaf Mutes, and Miss Sarah Fuller, a teacher of hearing children, who had been studying with Miss Harriet Rogers, was installed as principal, with Miss Mary True as assistant. After 1877, the school was known as the Horace Mann School. It is still one of the leading day schools for the deaf in the country.

Miss Fuller and Miss True made great efforts to secure all the information they could on the subject of speech teaching. The works from which they obtained greatest help were those of Alexander Melville Bell, a Scotch master of phonetics, who was then living in Canada. He had given a course of lectures in Boston in 1868, and Miss Fuller had become greatly interested in his method of vocal culture and its possible application to the deaf. Mr. Bell had perfected a system of sym-

bols by which any sound made by the human vocal organs could be exactly expressed in writing. These symbols were pictorial, and had been proved an invaluable aid, not only in showing a deaf child what he was expected to do with his speech organs in forming sounds, but also in enabling the teacher to write graphically the sounds the pupil actually made, and so lead him from the sounds he knew to the ones she wished him to form. Mr. Bell had not originally intended the system for use with deaf mutes, but had devised it as a method of universal language instruction. However, it had been tried out by a teacher of the deaf in England, and Miss Fuller was very anxious to know more about it.

She wrote to Melville Bell and asked him to spend some time in the school when he visited Boston to give his next course of lectures, and instruct her teachers and pupils in the use of the Visible Speech Symbols. Mr. Bell replied that he would be too much occupied to undertake this, but that his son, Graham, who was as well versed in the symbols as he, might come in his stead. Miss Fuller was so determined to avail herself of this offer that she prevailed on the School Committee, who scarcely knew what it was all about, to provide a fund of \$500 to pay for the services, during the spring of 1871, of Alexander Graham Bell.

The young man was then twenty-three years old. His advent in the "very little, experimental school," as he afterwards referred to it, was the beginning of an epoch. The teachers he trained then and afterwards became the nucleus of a group of staunch supporters of the oral method. The method warfare continued bit-

terly and violently for many years, but Mr. Bell's pre-occupation was not so much with methods as with the well being of the deaf child. He was familiar with the mechanism of speech, and he knew that deaf children could be given serviceable articulation, but he also knew that widespread knowledge of this fact must precede any general acceptance of it, and it was his untiring efforts to diffuse information concerning the deaf that finally broke the death grip the sign method had obtained upon America.

This came in later years, however. When he visited the Boston school for the first time, his knowledge of teaching the deaf was largely theoretic, and he was not yet the fiery advocate of "pure oralism" he afterwards became. He knew articulation could be imparted to the congenitally deaf, but, knowing also how many of the speech sounds are invisible, he was skeptical of the value of lip-reading. In Boston he was forced to admit that "the children really did seem to understand, to a very useful extent, the utterance of their friends and their teachers; they were not deaf at home; they were not deaf with their teachers; my curiosity was so much aroused to ascertain the cause of what seemed from my point of view impossible as to lead me to make the instruction of the deaf my life work."

So, lip-reading was the means of bringing to the deaf their best and greatest friend. As soon as his interest was aroused, he went into the subject with great impetuosity, bringing his scientific attitude to bear on its principles and possibilities. He made lip-reading part of the substance of an essay which he read before the



American Philosophical Society. When the little band of articulation teachers met in a convention in Worcester, Mass., in 1874, Mr. Bell gave them a thorough exposition of lip-reading. He spoke of the impossibility of seeing many of the sounds, but remarked that since he had seen so many people in America reading the lips he had come to recognize that his adverse theory in regard to lip-reading was at fault, and he had investigated the feasibility of the art and endeavored to devise a method of instruction. He had, he said, coined one or two new words, or, rather, attached new significations to old terms.

The word *homonym*, which had hitherto been used only as the opposite of *synonym*, he employed to denote *words that appeared alike to the eye of a lip-reader*. The examples he gave were

Not, nod, donned, tot, dot, knot.

Many, penny, petty, Betty.

Did, didn't, knit, dinner, tint, dint.

The word *homophone* he applied to words which *sounded alike*.

Examples of these were:

Rain, rein, reign

Pear, pare, pair

Wood, would

A little later he began to use the word *homophenous*, which is now generally applied to both of these classifications. At this same Worcester meeting Mr. Bell characteristically illustrated his talk by dictating to a deaf man, Mr. Chamberlain, who had lost his hearing in



childhood and was a good lip-reader, the following sentence:

"It rate ferry aren't hadn't four that reason high knit donned co."

This jargon Mr. Chamberlain rendered "It rained very hard and for that reason I did not go."

Mr. Bell's ready enthusiasm flamed at the thought of what lip-reading might do in increasing the language facility of the deaf.

"I have lately made an examination of the visibility of all the words in our language contained in a pocket dictionary," he said, "and the result has assured me that there are glorious possibilities in the way of teaching speech-reading to the deaf, if teachers will give special attention to the subject. One of the results of my investigation has been that the ambiguities of speech are confined to the little words, chiefly to monosyllables. The longer words are nearly all clearly intelligible."

Mr. Bell compiled at this time a list of five thousand homophenous words, alphabetically arranged. When he opened his "School of Vocal Physiology," at 18 Beacon Street, Boston, he advertised that he was prepared to give instruction in "Lip-Reading or the art of understanding speech by watching the mouth, including practical methods of teaching the art to those who are deaf."

#### BIBLIOGRAPHY

Bell, Alexander Graham. Fallacies Concerning the Deaf, *Annals*, January, 1884.

Clarke Institution for Deaf-Mutes, Northampton, Mass. An Historical Sketch. Compiled from papers prepared for the celebration of the twenty-fifth anniversary of its founding.

- Clarke School: Dedication of Gardiner Green Hubbard Hall, *Volta Review*, March, 1913.
- Clarke School: Fiftieth Anniversary, *Volta Review*, January, 1918.
- DeLand, Fred. Dumb No Longer, The Romance of the Telephone, 1908.
- Historical Documents Concerning the Teaching of Speech to the Deaf, *Association Review*, 1900-1905.
- Historical Notes on William Thornton, *Association Review*, April, 1900.
- First Convention of Articulation Teachers of the Deaf and Dumb, *Annals*, 1874.
- Timberlake, Josephine. Illuminating the Volta Bureau on the South Side, *Volta Review*, August, 1925.

## CHAPTER X

### ORGANIZATIONS AND PUBLICATIONS

The Convention of American Instructors of the Deaf and Dumb met for the first time in New York in 1850, and, with some gaps during the Civil War period, regularly thereafter. Its official organ was *The American Annals of the Deaf and Dumb*, the first number of which was published at the Hartford School, October, 1847. The *Annals* were issued quarterly. Their pages were open to oralists as well as sign users. Some of the first articles published in the United States on the subject of lip-reading appeared in early numbers of the *Annals*. Accounts of the attainments of exceptional lip-readers were printed. Oral teachers recorded their experiences in teaching lip-reading, and there were also many valuable historical articles, as well as notes of European methods.

The little group of oral teachers, to whom Graham Bell had taught the use of "Visible Speech" organized a convention in Worcester, Mass., in 1873, but it was ten years before they came together again., Mr. Bell had from the first considered the formation of a national association of articulation teachers, but he felt that the time was not then ripe. He believed that others than

the deaf should be interested in the work; that parents of deaf children, public school officials, aurists, and philanthropists should be educated to a knowledge of the deaf child's educational needs. It was his aim to create a general sentiment in favor of speech and lip-reading for the deaf without at the same time increasing the friction between the oralists and the sign users. He went on working to this end, spending himself in lessons, in interviews, in lengthy correspondence, all the while that he was engaged in his own scientific work and in the exacting litigation which grew out of his invention of the telephone.

Colonel Robert Spencer, of Spencerian handwriting fame, was working for the deaf child in Wisconsin, and Miss Mary McCowen, who had opened, in Chicago, the first school in the country to admit deaf children of kindergarten age, created a sentiment in that part of the country in favor of lip-reading and speech. Miss McCowen's school, begun as a private enterprise, was incorporated in the public school system of Chicago. Adults were received there from time to time for private instruction in lip-reading.

As interest in speech and speech-reading for the deaf became more widespread, the Convention of Articulation Teachers attracted larger numbers. There were over two hundred at a meeting in New York in 1884. In 1890 they incorporated, under the law of the State of New York as the American Association to Promote the Teaching of Speech to the Deaf. Membership was open to anybody interested in the oral instruction of the deaf. Mr. Bell presented the Association with an endowment

fund of \$25,000, and when the income from this amount proved inadequate to cover the expenses of the Association, he made up the deficit year by year.

Part of the income from the Association's funds was used to defray the expenses of a training class for teachers at the Clarke School. Teachers from all over the world, England, Japan, India, Greece, South Africa, began to come to the United States to learn how to teach deaf children to speak.

In 1899, the Association began to publish a magazine, *The Association Review*, the editorial office of which was in the School for the Deaf at Mt. Airy. The *Review* was issued five times a year. It chronicled the proceedings of the summer meetings of the Association and also published a variety of articles on speech-teaching, speech-reading, and historical data concerning the early education of the deaf.

In 1908, the Volta Fund, which Graham Bell had created in behalf of the deaf, was placed in charge of the Association. In 1910, the offices of the Association were moved to the Volta Bureau in Washington, and *The Association Review* became a monthly and was named *The Volta Review*.

The name *Volta* we owe to three extraordinary men: Alessandro Volta, Napoleon Bonaparte, and Alexander Graham Bell. In 1800, Volta, an Italian scientist who had been experimenting with a chemical generator of electricity, described his battery at a meeting of the National Institute in Paris. Napoleon, who was a member of the Institute, was present. He grasped the value of the invention, and immediately proposed that France

should award Volta a gold medal and a gift of 6000 francs. He also established a permanent fund from which a sum of money, known as the "Volta Prize" should be conferred upon those who made important contributions to the new science of electricity. In 1880, this prize, which now amounted to 50,000 francs, was bestowed upon Alexander Graham Bell for the invention of the electric speaking telephone.

He determined to invest this money in such a way that it would promote scientific research and at the same time would remain a permanent fund. This he accomplished in a characteristic fashion by using part of the Volta fund to further the improvement of phonograph records, the patent rights to which, when sold, brought him \$200,000.

June 27, 1887, he turned over to his father, Alexander Melville Bell, \$100,000, to be held in trust and used "for the purpose of founding and maintaining a Bureau for the increase and diffusion of knowledge relating to the deaf."

John Hitz, formerly Consul General to the United States from Switzerland, who had been assisting Dr. Bell in his researches, was named superintendent of the Volta Bureau. May 8, 1893, Helen Keller turned the first sod to break the ground for the construction of the fireproof building which has been the home of the Volta Bureau since 1894.

The Bureau has been for forty years a disseminating center for information relating to all classes and ages of deaf and hard of hearing persons. Thanks to the broad



policy adopted by Dr. Bell and maintained by Mr. Hitz and his successors, nothing that would aid the welfare of persons handicapped by any degree of deafness has been excluded. The library contains the largest collection of books on deafness in America, perhaps in the world. The Bureau sends out enormous quantities of free literature, and gives information in response to all inquiries relating to any phase of the education of any deaf or deafened person. A free agency for the placing of teachers is maintained; a list of schools for the deaf and the hard of hearing is always available; personal letters are written in response to requests for information which come from every part of the world.

Hard of hearing adults began to learn of the Volta Bureau soon after it was founded, and to write letters of inquiry in regard to their particular problems. The oldest letter in the Volta Bureau files is from a deafened man asking about lip-reading. Schools of lip-reading advertised in the *Volta Review*, and deafened persons contributed articles about their experiences. The magazine gradually became as much the organ of the deafened adult as it was of the teachers of the deaf.

### BIBLIOGRAPHY

*American Annals of the Deaf and Dumb*, October, 1847, January, 1850.

Proceedings of the Second Convention of Articulation Teachers of Visible Speech, *Annals*, October, 1874.

Alexander Graham Bell—His Seventieth Birthday, *Volta Review*, March, 1917.

Memorial Number, *Volta Review*, October, 1922.

DeLand, Fred. The Telephone, the Radiophone, the Graphophone, the Music Record, and Modern Lip-reading, *Volta Review*, June, 1924.

The Volta Bureau, Reprint, No. 262, Volta Bureau.

The Volta Bureau, *Volta Review*, January, 1913.

The Volta Bureau's Teacher's Agency, *Volta Review*, October, 1913.

Proceedings of the Seventh Annual Meeting of the Federation, Philadelphia, 1926, p. 480.

## CHAPTER XI

### THE FIRST TEACHERS OF LIP-READING TO ADULTS.

Dr. Bell confined his energies to the instruction of children in the various "experimental schools" which he opened in Boston and Washington, but the publicity given to the oral method inspired many deafened adults to apply to teachers of deaf children for help in the "newly invented" art. Miss Fuller and Miss True both taught adults from time to time, using the Melville Bell symbols to give their pupils familiarity with the positions of speech. Miss Fuller wrote a little pamphlet, "Speech-Reading: A Guide for Self-Instruction Where Trained Teachers are not Available." This was illustrated with pictures of the various lip-positions. Each position was carefully analyzed, and the pupil was bidden to watch himself in a mirror while he repeated each one.

"k in the word *key*  
c in the word *cat*  
g in the word *gun*  
ng in the word *ring*

"These consonant elements require a close study of the back of the tongue. The appearance of the lips, the teeth, and the mouth aperture is the same for all. With a mirror and with the head thrown back, the

learner should give, successively, the sound of *k* and *g* and notice the movement of the back of the tongue as it drops from its position against the soft palate to allow the breath or voice to escape, the only noticeable difference between its action in forming *k* and that in forming *g* being the somewhat wider opening for the passage of voice in *g* than for the breath in *k*. The position of the tongue for *ng* is the same as for *k* and for *g*, but it remains motionless. This element is always final."

Lists of words embodying the elements were given, and a number of practice sentences. Some of the sentences were excellent:

Far

Are you far from home?

Have you far to walk?

Do you live far from the station?

Fee

Did you pay a fee?

How much was the fee?

I did not pay a fee?

But the inevitable preoccupation with positions of speech creeps into this practice,

Knew, gnu

Who knew about the gnu?

Where was the gnu found?

Did you hear the call of the sheep?

Yes, I heard "baa, baa" as I took down the bar.

The man will tie the bough to the bow of the boat.

The beau wrote an ode to the River Po.

He owed for dye to color his bow.

Nevertheless, Miss Fuller's inspired knowledge of the deaf and her genius for teaching carried her through the difficulties of such lessons.

"The memories of teaching speech-reading to adults in those early days of 1870 are very delightful," she wrote in a letter, "for they were of loving gratuitous service from sympathy, and because of my belief in the value of the ability to read speech. One of my first pupils was an artist, who was withdrawing from social duties because of increasing deafness. On one of Prof. Melville Bell's early visits to Boston, I invited him to call with me at her studio. He commended the ease with which she understood and took part in the conversation that followed."

Miss True, also, by her simple conviction that talking to a deaf person was the most interesting thing in the world, was able to surmount all obscurities of method, and she managed to drag her beginners bodily through whole volumes of Phillips Brooks' Sermons and Matthew Arnold's poems. One of her pupils still recalls exasperated efforts to get from the lips the Persian names in *Sohrab and Rustum*.

These early speech reading lessons were very informal, and methods of payment were more informal still. After a month or two of practice, the pupil would inquire, "Miss True, how much do I owe you?" Consulting her family and friends, Miss True would be likely to remark, "I don't want to send a big bill just because he happens to have plenty of money." So the bill would be a small one, and if the pupil did not have "plenty of money," it was not sent at all.

Miss Fuller received so many requests for lessons

from adults that she was not able to take care of them. Dr. Clarence J. Blake, one of the first of the great aurists to recognize the value of lip-reading, had been sending her pupils, and when he found that Miss Fuller was too busy to teach them he suggested that she train someone specifically for work with adults. Miss Fuller agreed to this proposition, and Dr. Blake selected Miss Eleanor L. Hough, "a lady who had had much experience in visiting and reading to invalids, to whom her refined gentle manners and her delicate attentions brought pleasure and needed cheer." Miss Hough continued to teach lip-reading until her death in 1893.

When Miss Hough died, Mrs. Alice Mary Porter took over the classes started in Boston. Mrs. Porter had been a normal student of Alexander Graham Bell in 1874, and had been trained in the Bell Symbols and the mechanism of speech. She had taught speech to deaf children for some years previous to her marriage. In her speech-reading work she used the Bell Symbols, and also a little text book which had been prepared, at Miss Fuller's request, by Alexander Melville Bell. This little book, "Speech-Reading and Articulation Teaching," was published in Washington and retailed at 25 cents. Afterwards when Professor Bell published his "Principles of Speech and Dictionary of Sounds," all of these early teachers made use of it with their lip-reading pupils.

In his preface to the shorter work, Professor Bell remarks, "Considering the small number of speech actions, and the multitude of words resulting from them, with the diversity in audible effect of every oral motion,



and considering also the absence, hitherto, of any directive treatise on the subject, the wonder is not that there are so few speech readers, but that there should be so many. The accuracy of some of these is little short of marvellous."

This was the attitude of most teachers of speech who were being called upon to impart lip-reading to adults, and who went about the work rather on the theory that facility in lip-reading "just grew." To judge by some of the practice material they used, they must have expected it to grow rather impressively!

At the Western New York Institution for the Deaf, which was opened in Rochester, N. Y., in 1876 as a "combined" school, in which both the oral and manual methods were employed, adults applied for lip-reading as early as 1884, and some of them were admitted to the regular classes with children. Miss Hamilton, one of the oral teachers, decided to open classes for adults exclusively, and to judge from the reports of her achievements, she was very successful. One of her first pupils was a bank teller, who had entered the children's class, and, "after twelve weeks could understand the speech not only of Americans, but of all persons who spoke to him on business at the teller's window in the bank, in German, French, and Swedish. He said that when reading the lips his apprehension of the language meaning of the motion of the teacher's lips was so natural that it was often necessary for him to place his hand upon her back to assure himself by feeling that she was actually talking without voice, to convince him-

self that he had not heard what had seemed so real to him."

At the New York Institution for the Improved Instruction of Deaf Mutes, David Greenberger began to teach lip-reading to adults in the early seventies. This school was opened as an oral school in 1867, and from 1870 to 1881 it was situated on the West side of Broadway at Times Square, about where the Hotel Astor is now. David Greenberger came there as principal in 1873. He had been conducting a private school in Chicago, where he taught speech to deaf children, and whence he was driven by the great fire. He was a generous contributor to the literature of lip-reading and articulation. After his resignation in 1898 he conducted a private school for the correction of stammering and speech defects, and also gave lessons in lip-reading. In 1892, by a court order, he changed his name to David Greene.

The school which he conducted was moved from Times Square to Lexington Avenue in 1881 and has ever since been known as the Lexington Avenue School. Another of its teachers, Miss Sarah Warren Keeler, began, about 1882, to give lip-reading lessons to adults. She advertised in the "Deaf-Mutes Journal" that she would give lip-reading lessons to "adult deaf mutes." She was a woman of ability, a graduate of the law department of the University of New York, and an enthusiastic oralist. She often took an active part in the conventions held by the articulation teachers, and, as early as 1884, she read a paper on "Speech-Reading, or the special training of the sight and judgment to under-

stand from the lips the speech of others." At this same meeting in 1884, Miss Alice Jennings, another oralist who had taught adults as well as children, gave a talk on speech-reading, which she closed by saying, "Teachers of articulation have special training,—why, as teachers of lip-reading do they not need the same? In so far as instructors give to their pupils power to understand speech do they brighten the lives and widen the horizon of many besides those directly under their care."

In 1894, Miss Keeler published in *The Educator*, which was then being issued at Mt. Airy, "A Method of Teaching Speech-Reading to the Adult Deaf." The opinions she stated in this paper were very advanced for her time:

"Having never heard of the teaching of lip-reading to adults by any method except the rather desultory one of conversation and dictation from printed literature, I had recourse to one of Pestalozzi's principles acquired in my college days. 'In each step of education proceed from the known to the unknown.' This principle applied to lip-reading would read: 'Proceed from the obvious to the obscure.' I have grouped the sounds for pupils in lip-reading with reference to the positions of the vocal organs, and, therefore, somewhat differently from the grouping of sounds for mutes who aim to learn articulation . . . . As nearly as I can estimate, after the first few lessons, one-half the time of each lesson was devoted to conversation. The first ten minutes would be occupied with a drill on the elements, and senseless compounds, then followed by a drill of equal length on words followed by phrases or sentences, and the last half hour by dictation of connected language and conversation."

The most aggressive, successful, and widely known of all the early teachers of speech-reading was Lillie Eginton Warren. Miss Warren was a highly trained and experienced corrector of speech defects in children. She was interested in phonetics, and was an ardent supporter of the Melville Bell Symbols as used in articulation teaching. She taught for three years in Dr. Seguin's Physiological School for the Feeble-minded. She was much in demand for curing stammering. She was one of the first to put forth the needs of the hard of hearing child, and also one of the first to support auricular training. In 1892, she published in the *Medical Record* an article on *Teaching Deaf Children to Hear*. She worked for a time with Dr. Samuel Sexton in the effort to reeducate the residual hearing of several supposedly deaf children. In 1894 she published a book, "Defective Speech and Deafness." The opinions advanced in this work were ahead of her time. "Many a child is considered stupid who is merely suffering from a defect in his hearing," she said in one chapter. The book contained a chapter on lip-reading for adults, "How the Hard of Hearing Adult May Enjoy Conversation."

Miss Warren had received adult students along with her child pupils, and in 1890 she began to teach adults almost exclusively. She had a flair for publicity, and her school grew rapidly. "The Warren School of Expression Reading" attracted pupils from every part of the country. Miss Warren trained assistant teachers, and some of these went to open branches of the Warren School in other cities. Miss Mary Woodrow started

schools in Atlanta, Boston, Washington, and Philadelphia. There was also a Warren School in Macon, Georgia. None of these classes, except the one in Boston, seem to have had very long lives.

To each of her normal graduates Miss Warren gave a certificate reading: "This is to certify that Miss \_\_\_\_\_ has received from me, personally, the full teachers' course of instruction in the Warren Method of Expression Reading and Numerical Cipher, and is authorized by me to teach the said method." Her advertisement reads: "Adults growing deaf taught to read speech in the expression of the face."

In 1895, and again in 1897 and 1899, Miss Warren copyrighted her method, and in 1903 she was granted letters patent for the invention of a "means for teaching reading of the facial expressions which occur in speaking." One of the two witnesses who signed her application for patent was Edward Bartlett Nitchie.

Miss Warren included in her method both personal instruction and a correspondence course. In her patent specifications she said,

"The object of my system is to teach the learner to associate the elementary or substantially elementary sounds with the special expression of the human face which invariably accompanies the utterance of such sounds. It includes a series of pictures of the human face in which separately substantially every expression is shown which the face assumes in uttering the series of elementary sounds used in speaking the language, and it also includes with this series of pictures a series or schedule of characters, marks, or symbols, one for each picture and expression, each arbitrary character referring to its appropriate picture."



Miss Warren taught her pupils that the "forty-odd" sounds in the English language reveal themselves in "sixteen outward manifestations or facial expressions." She reduced lip-reading to "a knowledge of these expressions, and ability to follow them as they appear rapidly in the face." Each of her pupils received sixteen photographs of Miss Warren forming these elements with her lips. Each picture had a number which represented that "expression." For instance, the first expression described "the mouth more or less rounded when giving the sounds which are represented by the letters *w*, *wh*, long *oo* and short *oo*." The second expression was thus outlined: "The mouth is elongated when giving the sounds which are represented by the letters *y*, long *e*, and short *i*."

These two expressions were then combined in words.

we	1.2	you	2.1
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As he learned the different expressions, the pupil was told to practice before the mirror, repeating the movements as shown in the half tone of Miss Warren's lips. Then, in a blank book, he "translated" from the numerical cipher and back again the exercises given for that purpose.

Did	you	rap	on	the	door?
12.2.12	2.1	10.13.7	3.9	5.10	12.11.10
I	will	drive	you	down	town
3.2	1.2.8	12.10.3.2.4	2.1	12.3.1.9	12.3.1.9
					12.1.9.3.2.12
					tonight

Miss Warren had a vigorous personality and considerable imagination and force. Her school prospered, and as the only one of its kind in the country, received a good deal of free advertising. Several newspaper



clippings have come down to us, which reveal that the attitude toward lip-reading in the mauve decade was not so very different from that in the days of our revered Bulwer.

"There is something extremely plaintive and touching in this kind of philanthropic work," remarks one reporter, hitting a sentimental note. "It is sad to see the bright-eyed boys and girls, although their deficiency is somewhat concealed by the pleasure they experience in learning and progressing. But with the older it is different. They are trying to retain their power, or else to reinforce the ear with the eye in order to be able to understand. Such people have always an expression of half hopelessness which is even more appealing than that of actual grief."

Another reporter, however, took a much cheerier view of the situation. After referring to a "remarkable development of the science of speech reading," he went on breezily,

"The belle of a house party last winter at a well known country seat on the Sound was a beautiful matron from the South. Her sprightly wit, no less than winsome beauty, made her the life of the house, and her departure was sincere regret to the guests, to whom she was a stranger until introduced by the hostess.

"'And to think, she is deaf—totally deaf!' sighed the hostess, as the carriage turned toward the station, leaving the group on the veranda disconsolate.

"'Deaf?' they repeated in chorus. 'Deaf? What do you mean?'

"'Lucretia Throckmorton is as deaf as a post. She has never heard a word spoken to her while in this house. It's years since the sound of a human voice has reached her clever brain.'

"Incredulity was on every face; protest in every voice.

" 'Nonsense,' said one, 'I have talked with her by the hour, and I am sure she heard every word.'

" 'She never failed to answer me,' said another. 'Indeed, so quick was the response that she seemed almost to divine my thoughts.'

" 'I made love to her as industriously as is my wont,' confessed a gallant from the neighboring military post, 'and I swear not a word was lost.'

" 'I am not surprised,' smiled the hostess, 'that you doubt my word. I lived a week with Mrs. Throckmorton before I discovered her affliction. In all probability I would never have suspected it had not circumstances forced us one night to share the same bedroom. Not until the lights were out, and there was no response to my repeated remarks, did it dawn upon me that my companion was as deaf as the bedpost. Next day I learned her story, and, believe me, the day of miracles has not passed.

" 'She had been steadily growing deaf since girlhood, but it was not until after her marriage that it became a source of such embarrassment that she was forced to retire from society. She was bordering upon melancholia when a friend similarly afflicted summoned her to New York.' "

"For some time she was absent from home, to return to it literally reborn. The strained, worried expression, inseparable from the faces of the deaf, gradually disappeared, and to the surprise of her family and friends, she was not only able to carry on conversation, but soon took up her old place in the social world.'

" 'How does she hear?'

" 'With her eyes. It's called "speech reading." ' "

The heroine had, during her stay in New York, been studying with Miss Warren. The story was illustrated

by photographs of Miss Warren demonstrating various "expressions" before a mirror.

With publicity like this, and with her own ability and force, it is no wonder that Miss Warren was successful. She appeared frequently in print, publishing articles in the *Medical Record*, in the *Popular Science Monthly*, and in *Werner's Magazine*. She gave talks at several meetings of the American Association to Promote the Teaching of Speech to the Deaf. She guarded her method and her prerogatives jealously, and when Edward B. Nitchie, who had been her assistant and secretary for two years, left her to open a school of his own, she was ungovernably angry. After quarreling with Mr. Nitchie and bringing suit against him, she suddenly closed her school and went to Italy, where she has been teaching ever since. Her school in Rome was quite influential for a time, and through her efforts the work in speech reading for adults in Italy has had more impetus than in some other European countries.

#### BIBLIOGRAPHY

Advertising page, *Deaf-Mutes Journal*, September, October, November, 1886.

Bell, Alexander Melville. Speech-Reading and Articulation Teaching.

Bell, Alexander Melville. Principles of Speech and Dictionary of Sounds.

*The Educator*, Mt. Airy, November, 1894.

Fuller, Sarah. Speech-Reading: A Guide for Self-Instruction, *Volta Review*, September, 1913. The same, reprinted and enlarged, *Volta Review*, July, September, December, 1918.

Jennings, Alice C. Speech-reading. Paper read at Third Convention of Articulation Teachers, New York, 1884.

- Keeler, Sarah Warren. Speech-reading. Paper read at Third Convention of Articulation Teachers, New York, 1884.
- Keeler, Sarah Warren. A Method of Teaching Speech-Reading to the Adult Deaf, *Association Review*, February, 1905.
- Pioneers in Speech-Reading for Adults, By A Pioneer, *Volta Review*, June, 1918.
- Proceedings of Third Convention of Articulation Teachers of the Deaf, New York, 1884.
- Warren, Lillie Eginton. Teaching Deaf Children to Hear, *Medical Record* (N. Y.), October 22, 1892.
- Warren, Lillie Eginton. Speech for Deaf Children, *Popular Science Monthly*, January, 1894.
- Warren, Lillie Eginton. Question Box, *Werner's Magazine*, January, 1893.
- Warren, Lillie Eginton. Speech Revealed in Facial Expressions, A New Method by Which the Deaf May Learn to Understand Conversation, pamphlet issued in 1898.
- Warren, Lillie Eginton. Defective Speech and Deafness, New York, 1895, published by Edgar Werner.
- Warren, Lillie Eginton. The Warren Method of Expression Reading with Numerical Cipher, Third Edition published by Lillie Eginton Warren, New York, 1902.
- Woodrow, Mary. Lillie Eginton Warren, *Volta Review*, April, 1919.
- Woodrow, Mary. Pioneer Work, *Volta Review*, October, 1917.
- Western New York Institution for Deaf-Mutes, Historical Sketch, published in 1893.
- New York Tribune*, June 3, 1903—article: "Eye Substitute for Ear."
- United States Patent Office, Patent Specification, Letters Patent No. 726,484, dated April 28, 1903. Application filed February 26, 1902. Serial Number 95,794.

## CHAPTER XII

### THE FIRST SPEECH-READING CONFERENCE

When the American Association to Promote the Teaching of Speech to the Deaf held its fourth summer meeting at Chautauqua in 1894, Dr. Bell suggested that lip-reading be given a large space on the program. As a result, the talks by speech readers and teachers of speech-reading comprised eighty-five pages of the reports.

These demonstrated the amount that had been accomplished by the oral schools in only twenty-five years. One of the best evidences of the advancement of ideas was the fact that several teachers stressed the methods adapted for very small children. These teachers had arrived at the knowledge that comprehension of language through speech-reading might come before speech, and this was a great departure from the old notion that speech-reading followed the acquisition of a vocabulary.

One of the teachers at the Mt. Airy School, Mr. S. G. Davidson, himself deaf and a lip-reader, not only retailed his own experiences, but read many letters from the parents of orally taught boys and girls, describing

the progress of their children in the hearing world since leaving schools for the deaf. One father wrote,

“Regarding your first question as to what extent my daughter’s lip-reading enables her to mingle with and hold social converse with people who have not been afflicted by loss of hearing, I will simply say that all her friends with perhaps one or two exceptions, whom she seldom sees, and positively all her intimate associates are those whose hearing is not affected.”

After describing her attainments at a school for hearing girls in Quebec, he added indignantly,

“I do not know what more I can say and I do not know the reason for the inquiries you make. Has some brute in human shape attempted to destroy or injure the schools where deaf-mutes are taught to speak and understand spoken language and get their share of happiness out of life?”

A mother wrote of her deaf daughter’s success in a school for hearing girls in St. Paul. Another girl who had been six years in the Clarke School had entered the sixth grade in a public school for the hearing and made an average of 95 for the year. A young woman, congenitally deaf and a graduate of the Clarke School, wrote,

“I could not converse with my hearing friends were it not for my knowledge of lip-reading, which is my greatest blessing. Of course, my conversation with the members of my family is altogether by speech and lip-reading. I can understand all of them, even my niece (aged five years), with whom I have been able to converse ever since she learned to talk.”



It is very interesting to read over these old accounts and identify some of the clever school boys and girls of that time as successful adults we are hearing about today. One of them, for instance, who was described as a capable boy in the Clarke School is Mr. A. Lincoln Fechheimer, now a well known architect of Cincinnati.

Some of the older persons who testified were graduates of the first classes of orally taught pupils, and were already self supporting. A Boston business man described his experiences in going about town on business for his firm and "very rarely having to resort to pencil and paper." Another Clarke School graduate, the manager of a steam laundry, wrote,

"I now have forty-one hands in my employ and have to do a great deal of talking to each one every day, and can recall but very few instances when I have been unable to understand them or to make myself understood. There are several foreigners among them who do not speak very good English, but still I manage to understand them after a little practice. At present I have Portuguese, French, Italian, and Irish, who speak broken English, and it was only a day or two ago that one of my men remarked to me, 'It is strange you can understand that Irish woman talk; I can't, and I can hear, too.' So you see my speech and lip-reading are great advantages to me in my business. Indeed, I do not know what I would do without them, as few of these people can either read or write.

"The great advantage lip-reading has been to me was shown when I was trying to get into the Odd Fellows. There was some objection raised when I applied for membership on account of my deafness. I was advised to call and see Grand Master Hill, who was then a total stranger to me. I went and, as luck would have it, the

Grand Secretary was in Mr. Hill's office. We were closeted there for two hours. Finally, to try me, Mr. Hill took up one of the lodge books and asked me to repeat after him, which I did. After that he sat down and wrote a note to the lodge saying, 'Although he is deaf with his ears, he can hear with his eyes and I see no reason why he should not be admitted to the Order.'

Some of the letters Mr. Davidson read were from hard of hearing lip-readers. One was the headmaster of a famous preparatory school in Philadelphia, who lost his hearing at the age of 35, and, by means of lip-reading, was able to continue at the head of his school. Another was from Mr. S. M. Eddy, the bank teller mentioned in an earlier chapter, who studied in Miss Hamilton's class for adults at the Rochester School.

"I rely upon lip-reading in my business entirely," he wrote, "and believe I can and do attend to the duties that devolve upon me as a bookkeeper in the Cayuga County Savings Bank as well as a hearing person could, and the fact that my salary has been increased twice since my hearing left me would indicate that the Bank management held the same opinion. I have also, for the last 14 years carried on the most extensive steamship ticket and draft agency in the city, and though I do not increase my business as much as I did for a number of years before I was deaf, I still, with a little occasional help from others in the bank, hold my own and a little more."

Mr. Eddy related a curious experience during a visit to Chicago.

"As I was nearly ready for bed one evening about 11 o'clock at the University, a young man entered my room

with a key and seemed quite surprised to find it occupied before him. I said to him, 'I think you have gotten into the wrong pew this time.' He said, 'No,' and showed me his key which, sure enough, did have the right number on it. But I insisted that as I had occupied it for several days and my things were all there that there was a mistake somewhere, and the young man finally took himself off. The next time I saw him was after breakfast in the morning. I then asked him if he had finally found a sleeping place and after several other remarks between us I asked him something about the Fair which he did not quite understand and we each discovered for the first time that the other was deaf."

Several teachers of lip-reading described the method they used with adults. Miss Warren was present at the meeting and gave a talk, which, however, concerned the subject she was most interested in at the time, the improvement and development of hearing in the hard of hearing child. Miss Sarah Allen Jordan, of the Horace Mann School, spoke of her lip-reading course for adults, revealing that the old preoccupation with the positions of speech still dominated the ideas of all these teachers.

"Persons may learn to understand from the lips of others without making a study of the positions of the elements, but it is then often guess-work and the task a much longer, more difficult, and a much less satisfactory one than if a good foundation is laid by carefully studying the exact position for each element of speech and thus gaining a thorough acquaintance with the movements of the vocal organs . . . . After a few of the consonant positions have been fixed, it is well to present them as initial and as final elements with a certain vowel. The vowel, *a*, as it is the most open,

and from its formation allows the action of the tongue to be readily seen, is one of the best with which to work at first . . . . Although experience has shown excellent results from this systematic study of, first the elements; second, the simple combinations; third, more difficult combinations; fourth, phrases, and fifth, sentences as a whole, yet the teacher should not hesitate, even in the beginning, to repeat, occasionally, full sentences, and she may feel quite sure that something is gained from them."

"After the pupil has learned to understand the teacher well, it is helpful to call in one's friends, first one, then another, to talk with him so that he may have quiet practice, under the teacher's supervision, in reading the lips of different persons, before he is thrown upon the world, where the excitement of meeting people renders it more difficult to concentrate one's thoughts."

Much of this was contradicted by the testimony of the lip-readers themselves who spoke of their own attainments and experiences. One man "wanted it told from Maine to Oregon that it is possible for every deaf person to learn to read the lips." Mrs. Balis, an adventitiously deaf graduate of the Illinois school, who was then teaching the deaf, but who had taught for three years in a school for the hearing, gave a spirited account of her lip-reading adventures. Another young woman, the daughter of sign-taught parents, explained that she depended entirely on speech and lip-reading, and had received all her education in public schools for the hearing. The most brilliant and absorbing paper was that read by Mrs. Alexander Graham Bell. As a comprehensive view of the whole subject of lip-reading, from the point of view both of the deaf child and of the

hard of hearing adult, the essay could hardly be excelled. It was so far ahead of the time that it may still be read today as a modern and authentic exposition of speech-reading. Mrs. Bell stressed the necessity for being able to read rapid speech, and insisted on synthetic methods of practice, as contrasted with the prevailing dalliance with positions.

"Speech-reading," she said, "is the systematized result of practice:

"I. In selecting the right word from a large assortment of possible words presented to the eye.

"II. In the power of grasping the meaning of what is said as a whole, from possibly a few words, or from parts of those words recognized here and there.

"There is a very large number of words which are alike to the eye . . . . It is necessary that there should be an intimate knowledge of a large number of words from which to select the probable word, and second, that the habit of making the selection should be so well established that it could be done instantaneously and automatically. In perfect speech-reading there is no more conscious effort in this selection than in the act of winking.

"In consequence of the large number of words that are alike to the eye, the art of speech-reading consists in seeking to grasp the meaning of what is said as a whole rather than in wasting time trying to decipher the words one by one. By making sure of a word, here and there, by the method shown above, the trained mind is able to fill the blanks between, and to spring instantaneously to a clear realization of what is being said.

"With me, this training began from the very beginning, and the habit was formed unconsciously, and I am only made aware of its existence when struggling



with the difficulty of understanding a stranger. I have no doubt, however, that this habit could be systematically cultivated. It should not take long for one possessing a good knowledge of language and a quick, bright mind to develop into a fair speech-reader . . . . I believe there is a great future for it when its adaptability to various purposes becomes better understood."

In conclusions she stated,

"Speech-reading is essentially an intellectual exercise; the mechanical part performed by the eye . . . . is entirely subsidiary.

"The aim of the speech-reader should be to grasp a speaker's meaning as a complete whole, and not attempt to decipher it word by word or even sentence by sentence.

"To those to whom the doors of sound are closed the acquisition of the 'Subtile Art which may enable one with an observant Eye to Hear what any man speaks by the moving of his lips' is worth, and well repays every possible effort to attain."

This paper was widely read and copied and commented upon. The *Atlantic Monthly* published it in 1895, and it was translated and reprinted in fourteen foreign countries. Ten years later Mr. Edward B. Nitche dedicated a text book on lip-reading to Mrs. Bell. In magazine articles written ten years apart, he referred to the inspiration he received from this Chautauqua address:

"Mrs. Alexander Graham Bell, in her address before the Fourth Summer Meeting, emphasized the value to a speech-reader of the power of grasping the meaning of what is said as a whole. . . .

"Mrs. Bell was one of the first, if not the first, to recognize the need of synthetic and intensive training



in lip-reading, and I owe her a real debt of gratitude for the clues she gave me in working out my methods, and this I have acknowledged by dedicating one of my books to her."

Mrs. Bell's speech did not exactly mark the beginning of a new era, for eras blend one into another so that it is hard to differentiate them. But with the growing realization of the importance and possibilities of lip-reading, the subject received an impetus which brought inventive minds to bear upon it. Methods of teaching were simplified in one direction and greatly elaborated in another. There was less theory and more practice. Hard of hearing teachers who themselves practiced lip-reading began to work out methods of instruction adapted to the needs of hard of hearing adults. The work of teaching lip-reading became more impressive, and approached the dignity of a profession. The acquirement of facility in the art was more widely regarded as a matter of study and practice rather than a mysterious accident.

#### BIBLIOGRAPHY

- Proceedings of the American Association to Promote the Teaching of Speech to the Deaf, Chautauqua, 1894.
- Bell, Mabel Gardiner. Success in Speech-Reading, *American Annals of the Deaf* Vol. XXXV, pp. 127-130, 1890.
- Bell, Mabel Gardiner. The Subtle Art of Speech-Reading, *Annals*, Vol. XL, pp. 169-172, 1895.
- Bell, Mabel Gardiner. The Subtle Art of Speech-Reading, *Atlantic Monthly*, February, 1895, reprinted *Volta Review*, March, 1917.
- Nitchie, Edward Bartlett. Grasping the Meaning as a Whole, *Association Review*, June, 1904.
- Nitchie, Edward Bartlett. Training Plus Experience, *Volta Review*, February, 1915, Vol. XVII, p. 71.

## CHAPTER XIII

MARTHA E. BRUHN

Miss Bruhn is preeminently one of those who broke the ground in the lip-reading field. For almost thirty years, her pupils have come to her from all parts of the country. She herself has travelled widely, giving her normal course in many states. Her normal graduates have opened Muller-Walle schools throughout the United States and Canada. But when Miss Bruhn first opened her school in 1902, lip-reading for adults was largely virgin soil.

Born in Boston and educated to become a teacher, she was working as an instructor in French and German in the public schools of Massachusetts when her hearing began to fail. She was treated by many specialists, among them Dr. Clarence Blake, who advised her to study lip-reading. She had never heard of lip-reading, but she arranged for lessons from Mrs. Porter, and then attended a branch school of Miss Warren's, which had been established in Boston by Miss Mary Woodrow.

Her progress was not encouraging, and as her hearing steadily grew worse she endured many distressful hours during her teaching periods. One day, after a

particularly unhappy time with some French pupils, she wandered into the public library and began listlessly to turn over the foreign newspapers. In one of them she saw an advertisement of a lip-reading school in Germany. She had already been to Europe twice, once to study languages and again to consult specialists in regard to her deafness. Should she go a third time to pursue anything so ephemeral as lip-reading?

The Bruhn family has always been a very united one, and Miss Bruhn never did anything without consulting her mother and her guardian, who had advised her since her father's death. There had been many discussions as to what profession a hard of hearing woman could follow, and now there were more discussions in regard to the new idea of lip-reading, but finally young Martha took her courage in both hands and sailed for Germany.

Since 1886, Herr Julius Muller-Walle, formerly a teacher in the School for the Deaf in Hamburg, had been teaching lip-reading to adults. His method had been evolved through his efforts to help a hard of hearing brother, who, he found, required different instruction from that given to deaf children. Too restless and energetic to remain long in one place, Herr Muller-Walle went from city to city giving short courses, and when Martha Bruhn arrived in Germany, he was conducting classes in Berlin. She took his six-weeks' course, and, watching her work with the other pupils, he became interested in her natural ability, and also in the fact that she was master of several languages. He

proposed that she carry his method to America. Miss Bruhn hesitated over this new idea, for her sole thought in taking the course had been to seek a means of continuing her language work.

"I'll have to go home and think about it and talk it over with my mother," said she.

"What! Go all the way back to America?"

"Yes," she replied firmly. "I want to see what my family think about it first."

Once more, discussion seethed in the Bruhn household. Mrs. Bruhn was very skeptical about the whole matter. The course cost five hundred dollars, and involved still another trip abroad.

"Where will you get the pupils?" she asked. "Are there enough hard of hearing people in Boston to make it worth while?"

The guardian, however, was in favor of the venture. At last, deciding to take the plunge, Martha drew all her savings out of the bank and returned to Germany. She was the first hard of hearing normal pupil Herr Muller-Walle had ever accepted, for, in common with many instructors of the deaf, he had the idea that all teachers of lip-reading should have perfect hearing. Miss Bruhn displayed so much aptitude for the work that, after she had completed her course, he allowed her to teach in his school for several months.

The excitable German professor, with his riotous hair, his quick gestures, and his enthusiasm, poured himself out in his lessons with such generosity that he frequently exhausted his reserves of energy, and at

times, after a tremendous outburst of effort, he would exclaim,

"I must drop everything! I must get away! I must get away!" And throwing up his hands, he would rush out of the room, leaving his pupils open-mouthed, to occupy themselves as best they could until he chose to return. But he had an incomparable understanding of lip-reading difficulties, and of the most logical method of overcoming them. His knowledge of speech was profound, and his classification of sounds from the lip-reader's standpoint, made over fifty years ago, has not yet been improved.

From this mixture of enthusiasm, experience, and inventiveness, Miss Bruhn selected what she could use, translated the fundamental principles of the method into English—and what an undertaking that must have been only one who knows the two languages can conceive—and returned to America to open her own school.

In September, 1902, she began, with one pupil. Before very long, two others applied, but getting people to believe in the new work was an uphill process. Few persons desired to take lessons. Miss Bruhn had no references, because nobody had faith enough in the school to allow her to use his name. She had no text book except the translations and exercises she had copied into a series of note-books, and she had to work up her practice material as she went along. Nevertheless, at the end of the first year, she had taught fourteen persons.

Year by year, as her classes grew, her work began to be noticed, especially by teachers of the deaf, who had

hitherto considered the teaching of lip-reading to hard of hearing adults a negligible branch of their own profession. How negligible, an utterance of Dr. Bell's in 1906 bears witness.

"So far as the census returns show," he wrote in the *American Annals of the Deaf*, "the power of speech-reading is confined to the totally deaf. This does not arise from any natural incapacity on the part of the partially deaf to acquire the art, but from artificial conditions which interfere with its acquisition. Most of those who lost hearing in adult life have not apparently yet learned of this important means of ameliorating their condition . . . . They rarely think of lip-reading in this connection. Many of them have never even heard the word, or have associated lip-reading with the 'deaf and dumb' rather than with themselves."

Miss Bruhn gave her first public exposition of her method in 1912 at the Providence meeting of the American Association to Promote the Teaching of Speech to the Deaf. She showed by demonstration that lip-reading instruction differentiated the movements of speech from the positions of speech as imparted in articulation teaching. Dr. Bell pounced at once upon the distinction.

"I am bound to confess that there is a great deal in this lip-reading of Miss Bruhn that is valuable to our work, but there is one point that has struck me—there is a radical difference between her method of looking at speech-reading and ours. We look to positions of the vocal organs; she looks to movements. There is something very significant there."



The teachers of the deaf were quick to utilize this improved method of approach. Already, before the Providence meeting, Miss Bruhn had been asked to give a course to the teachers at Northampton, and one of her normal pupils, Miss Caroline Olin, was using the Muller-Walle method at Mt. Airy. In 1915 Miss Bruhn held a normal class in New York City. This class was attended by 37 teachers of the deaf from the New York and Newark, N. J., public day schools for the deaf for the purpose of introducing Miss Bruhn's method into their schools.

Since 1915 Miss Bruhn has given a yearly course of post-graduate normal lessons at the Clarke School, and she has, at various times, instructed the teachers in the state schools of Alabama, Virginia, West Virginia, Western Pennsylvania, Illinois, Texas, North Carolina, Mystic, Conn., and Mt. Airy. In 1929 she was asked to give a course in the summer session of the University of California.

The basis of Miss Bruhn's method is syllable drill. The syllables are the framework on which she builds her sentences. *Mā-see, so-fā, thā-mā*, etc., are all forms that are continually being spoken in sentences. If the pupil reads these often enough, he absorbs them unconsciously, and has something to help him read the rest of the sentence. This practice underlies the outstanding feature of the Muller-Walle Method, which is its objective simplicity. It aims primarily to simplify the physical difficulties of lip-reading instruction. The pupil's ability is built up by a gradual process of leading from the known to the unknown.

The syllables lead to grammatical sentences:

mā-she

ma-she-row

ma-she-ree

may-she-read

may-she-read-the-paper

thā-mā

they-may

they-may-see

they-may-see-them

The pupil is reading rapidly uttered speech in his first lesson. This proves to him that lip-reading is possible, and gives him encouragement. For the same reason, the exercises are arranged so that things "hard to see" are preceded by things "easy to see." Parts of speech are arranged and rearranged so that the road from simple to complex may be practicable. Sentences grow from easily recognized phrases, stories from gradually lengthened sentences. The pupil is continually reading rapid lip movements.

In her adaptation of the method from the German, Miss Bruhn transferred from German speech into English speech the consonants and vowels according to their lip-reading values. The long vowels are easier to lip-read than the short vowels, so the long vowels are given through several lessons before short ones are introduced. Labial consonants are easy to see, so the labials are taught first.

This, which is the physical side of lip-reading, does not preclude the psychological side. Miss Bruhn has

made a special study of the psychology of language, and after years of experimenting with various kinds of practice material has recently introduced a new system by which the pupil, instead of passively watching, is compelled to do some of the mental work when he is practicing. He is also enabled to read the lips of several persons, as in conversational speech.

For instance, when he is given a card with a sentence printed on one side and the key word of that sentence on the other and is told to watch for the same key word in a different sentence on the lips of the teacher, he is being trained in the fundamentals of lip-reading psychology. This exercise is designed for group work. The teacher reads from her list of sentences, and each pupil must watch closely so as to recognize the one which pertains to the card he holds. Then he must repeat the teacher's sentence and also read his own for the benefit of the class. For example:

For beginners:

Teacher: Will you have a piece of *cake*?

Pupil: This *cake* is very good.

Teacher: *How far away* is the church?

Pupil: *How far away* was the ship when you saw it?

Intermediate: prefixes.

Teacher: I would *caution* you not to do that.

Pupil: They used every *precaution*, but it was of no use.

Teacher: My friend from Chicago *came* to see me.

- Pupil: What *became* of your friend who lived in California?
- Intermediate: numbers. Each pupil holds a number one degree higher than that given in some one of the teacher's sentences.
- Teacher: Commander Byrd flew over the South Pole *three* years after he flew over the North Pole.
- Pupil: We started on our trip around the world *four* years ago last month.
- Teacher: Roosevelt was the *26th* President of the United States.
- Pupil: Can you tell me who the *27th* President was?
- Intermediate: words of opposite meaning.
- Teacher: These apples are very *sweet*.
- Pupil: *Sour* grapes make fine jelly.
- Teacher: Can you direct me to the *right* road to the village?
- Pupil: The driver took the *wrong* road and lost his way.
- Advanced: precious stones.
- Teacher: The *amethyst* is known as the gem of springtime. It is the birthstone for February.
- Pupil: The finest *amethysts* are found in Ceylon and Siberia.
- Teacher: The *lapis-lazuli* was a favorite stone with the ancient Egyptians.

Pupil: A large number of Egyptian ornaments of *lapis-lazuli* have been preserved from the time of the Pharaohs.

Advanced: Geography.

Teacher: *Boston* is the capital of Massachusetts.

Pupil: When you are in *Boston* be sure to visit the old North Church.

In addition to her intensive work in building up her own method, Miss Bruhn has lectured widely in different parts of the country. Since 1825,<sup>?</sup> she has given a yearly course to the teachers of the Boston Public Schools. This course, offered to hearing teachers of hearing children, consists of lectures and demonstrations. It is designed to show the mental and physical factors necessary for successful lip-reading, so that teachers may be better fitted to help hard of hearing children in their classes. Several hard of hearing teachers are usually in the class each year, taking the course for lip-reading practice.

When the National Education Association became interested in the hard of hearing child, and a lip-reading department was formed, Miss Bruhn was made chairman of the Executive Committee. She attends the summer meetings of the Association, and has several times delivered addresses.

Miss Bruhn has taught more than fifteen hundred persons, whose ages range all the way from eleven to eighty-five. On the 25th anniversary of the school, the graduates presented her with a volume of signed trib-

utes and a scholarship fund of \$1000 to be used for needy pupils. Some of the old pupils return year after year to enjoy the practice classes, which they attend partly for lip-reading practice and partly for the stimulation which they receive from a continued association with the school. Several have been coming off and on for twenty years.

### BIBLIOGRAPHY

- Bruhn, Martha E. Bruhn Lip-Reading System, *Volta Review*, November, 1912.
- Lip Reading for the Adult Deaf, as Taught in Germany by Julius Muller-Walle, translated by Martha E. Bruhn, 1907.
- Exercises in Lip-reading for the Adult Deaf, 1912.
- The Muller-Walle Method of Lip-reading for the Deaf (Bruhn Lip-reading System) Published 1915. Third edition revised and enlarged, 1918.
- "Work and Play," Cards for use in the classroom, 1916.
- Practical Exercises on Advanced Study of Homophenous Words.
- Manual of Lip-reading for the Hard of Hearing and Deaf Soldier, Sailor or Civilian, 1918.
- Enseignement Practique de la Lecture sur les Livres, a French translation of the above.
- Elementary Lessons in Lip-reading (for use among hard of hearing children in the public schools) 1927.
- Bruhn Lip-Reading System, *Volta Review*, August, 1915.
- Learning Lip-Reading by the Muller-Walle Method, *Volta Review*, August, 1917.
- Lip-Reading for Deaf Children, *Volta Review*, March, 1917.
- Lessons from Experience, *Volta Review*, February, 1923.
- Vital Problems of Meeting the Needs of the Hard of Hearing Child, *Volta Review*, December, 1924.
- Discussion of Normal Training, *Volta Review*, February, 1924.
- My Experience as a Teacher of Lip-Reading, Proceedings of the Second Annual Meeting of the American Association for the Hard of Hearing, Boston, June, 1921.



Lip-Reading at the N. E. A. Convention, Proceedings of the Eleventh Summer Meeting of the American Association to Promote the Teaching of Speech to the Deaf, New York, July, 1924.

Cichorus, Rosa. The Life and Services of Julius Muller-Walle, *Volta Review*, October, 1913, Translated by Martha E. Bruhn.

Olin, Caroline. The Muller-Walle Method of Speech-reading, *Volta Review*, April, 1911.

Thomason, Pattie. The Muller-Walle System as Applied to the Teaching of Deaf Children, *Volta Review*, February, 1919.

Bell, Alexander Graham. Speech-reading for the Partially Deaf, *Annals*, January, 1907.

## CHAPTER XIV

EDWARD B. NITCHIE

As a leader of the hard of hearing, Mr. Nitchie has, probably, more original ideas to his credit than any other individual. The immense activities which, each year, increase the influence of the Federation; the enormously improved opportunities, social, spiritual, economic, which are offered to the deafened adult; the practical help now given the hard of hearing child—all were visioned in his far-seeing mind years before they actually came into effect. Those who have witnessed, during the past twelve or fourteen years, the snowball growth of Leagues and Conferences, have not always stopped to remember that Mr. Nitchie planned exactly this fruition of the seeds he had sowed.

In March, 1906, before ever a League was started anywhere, Mr. Nitchie wrote:

“It is planned by the undersigned to form an association or league of the deaf and the hard of hearing, and it is hoped that the league may extend around the world. The larger the league, the greater our sphere of mutual helpfulness. To accomplish the purpose of the league, it is proposed to use the following means: 1. The monthly publication of a magazine. . . . All members of the League will receive the magazine free of

charge. 2. The making of this magazine the means of drawing upon the experience of the members for mutual help and cheer. 3. Bringing members of the same towns and cities into touch with one another, and the formation of such conversation clubs as described above. . . . Suggestions of ways and means for deaf people to earn money, and the opening up of a possible means of members helping members to employment."

The school which Mr. Nitchie founded, and the method of lip-reading instruction which he built up represented only a part of his idea. Although he laid down his work at an age when most men are just beginning—he was barely forty when he died—he left a record of remarkable achievements, and a long list of inspired suggestions which others have carried out to the credit of his name. He had imagination and foresight, literary ability, and compelling personal qualities, which enabled him not only to visualize a wide field of effort in behalf of the deafened, but to set in motion the practical means of cultivating this field.

Edward Bartlett Nitchie was a member of an old Brooklyn family of German origin—the name was originally Nietsche—which was founded in this country in 1773. He was born in Brooklyn, November 18, 1876. A sensitive, clever, nervous boy, serious minded and devoted, he had decided to be a minister, and was studying toward that end when, during the summer vacation when he was fourteen years old, his hearing began rapidly to recede. He became so deaf in those few months that he could not understand anything that was said to him unless it was shouted at him. He kept

away from people as much as he could, and he spent hours praying for death.

But in the fall he went back to the Brooklyn Latin School and continued his studies along with hearing boys. He also continued, by phenomenal effort, to keep his place at the head of his classes. He entered Amherst armed with renewed courage and a small ear trumpet which he cupped in the palm of his hand. This trumpet was for years one of his most affectionately regarded souvenirs, and remained on display as a curio at the Nitchie School until some misguided admirer walked off with it. By its aid, and by sitting in the front row at class, he was able to sustain the standard he had set for himself, and he graduated with honors and a Phi Beta Kappa key.

After graduation, he started out to find a job. All his humor and bravery were put to test as he went from opening to opening, only to see each one close in his face. Nobody wanted a hard of hearing employee. It was five months before he secured an editorial position with the Ecumenical Council. At this time he had never heard of lip-reading, and when a friend proposed that he try it, he regarded it merely as a measure of last resort. He enrolled in one of Miss Warren's classes. The work was extremely hard for him, as he had that greatest handicap to a lip-reader, a logical, analytical mind which demanded to "see" every word, but almost as soon as he began to study, he realized the possibilities of lip-reading, and resolved to teach it.

He became Miss Warren's assistant and secretary, re-

maining with her two years. They differed, however, in their fundamental attitude toward their subject. Mr. Nitchie's great desire was to put lip-reading, so far as possible, within the reach of everyone who needed it. This was the chief reason that, in after years, he published each developing stage of his method, giving to the public his knowledge as fast as he acquired it. Soon after he came to Miss Warren, he began to write his first book, "Self-Instruction in Lip-reading." Its publication caused the first rift with Miss Warren. She instituted legal proceedings against him, claiming that he had plagiarized her method, but the case did not come to court.

In 1903 when he was only 26, Mr. Nitchie opened a studio in New York, where he offered courses in regular school branches to hard of hearing children. His idea at first was to help children who faced the same difficulties he had faced at fourteen, and to enable them to study under teachers who understood their handicap. However, he had so many applicants from adults, he soon abandoned the juvenile department of his school and devoted himself to developing his method of teaching lip-reading.

The progressive improvement in his method is exemplified in the books he put forth. The first volume, *Self-Instruction in Lip-reading*, was a great improvement on the Warren method in that it substituted symbols for her arbitrary system of numbering, but the approach to the subject was as analytical as Miss Warren's, and it still resembled the method used with the

congenitally deaf in that it dealt with positions of the mouth rather than with movements. Each position was given a name "descriptive of its cardinal point of individuality." The symbol used was an abbreviation of this name. The instruction, like Miss Warren's, was based on mirror practice. The pupil was supposed to stand before the mirror observing the position for each sound in a word, afterwards writing down the symbol for the position.

In the first lesson, the narrow opening of the lips for the sound of long *e* is described. This is called "narrow position," and is represented by the abbreviation *na*. The second position is that for *f* and *v*. This is called "lip-to-teeth," and is designated by *lt*. The position for *m*, *b*, and *p*, is called "lip-shut," expressed by the symbol *ls*.

The pupil was given exercises to "resolve" from English into symbols and back again: long quotations from Froude, Epictetus, and the Rubaiyat. Translation was a laborious process.

"Will you dine with me"	so-rn-ag rn-pu
	tg-wi-rn-tg so-rn-tf ls-na.
"How will you know the truth?"	wi-so so-rn-ag rn-pu
	tg-st-so tf-el tg-ep-pu-tf.

This was all very ingenious, and it served to fix the positions of speech in the pupil's memory. The opinions of speech experts concerning it are a recognition of the value of such a work in the barren field of lip-reading instruction. Miss Kate H. Fish of Gallaudet College wrote to Mr. Nitchie: "There is probably no



other work that goes into the subject so thoroughly."

The sentences given for practice in this early volume are comically difficult and illogical:

We'll leave you with Peter.

We will leap the river.

My brother will need the tool.

Why move my muff?

You were few.

You are high.

In the exercises designed arbitrarily to show the difference between various vowel and consonant movements, homophenes and near-homophenes were mixed up with little regard to sense and with still less regard to the simplifying of the student's difficulties:

The bell is loud.

The bear is loud.

The pen is loud.

The Bess is loud.

The peck is loud.

This sort of thing, intended for mirror practice, was gradually abandoned, and less and less of it appears in subsequent volumes. A few such exercises persist through the edition of 1912, but in the meantime, Mr. Nitchie was putting more emphasis on the psychological side of lip-reading. This first small volume was only a groping, and it serves to show the paucity of the material he had to work with when he began, and from which he built up the finished method which bears his name today.

His books, as they were issued year by year, show steady progress. Each deals less with phonetic analysis

of speech mechanism, and more with synthetic grasp of mental processes. In the first edition of "Lessons in Lip-Reading," published in 1905, he still has the pupil "resolve" words into their positions, but he has abandoned the cryptic symbols, and writes out the descriptions:

fee lip-to-teeth, extended-narrow.

pea lip-shut, extended-narrow.

In the 1909 edition, he has emerged entirely from the objective treatment of positions, and merely tells the pupil to "observe the movements" in a mirror. He ceases to use the photographs of mouth positions that were a feature of his earlier method.

*Lip-reading Principles and Practice*, published in 1909, by Frederick A. Stokes Co., is an impressive volume, which covers much ground. There are chapters describing the difficulties which the hard of hearing face, suggestions to their friends for helping them, suggestions for lip-reading practice, and a large amount of practice material. The basis of Mr. Nitchie's improved method is here set forth:

"Thought is quicker than speech. . . . Thought looks ahead and anticipates. . . . The method of mind-training should aim to develop the power of grasping thoughts as wholes."

The practice material and stories in this book are so good that, although Mrs. Nitchie in 1919 and again in 1930 revised and greatly added to the volume, much of the original matter was retained.

Mr. Nitchie's efforts were never confined by the limits of lip-reading instruction. The idea of spiritual

and practical help for the deafened seethed in his brain long before the words "social service" were in our common vocabulary. His activities were manifold, and were characterized by humor, imagination, and a serious realization of the troubles that the hard of hearing had to face. He started a publishing company, which he named *Surdus*, and through which he published his own text books and many pamphlets of interest to the deafened.

In 1907 he started a little magazine, *Courage*, in which he printed or reprinted articles by the Rev. A. W. Jackson, Grace Ellery Channing, Edward Everett Hale, and writers of equal ability. Interspersed with quaint "good cheer" articles, were practical suggestions by successful deaf persons who had been induced to describe their modes of earning a living.

In the very first issue of *Courage*, Mr. Nitchie published the first of a series of articles called "Lip-reading Simplified." These begin significantly:

"The modern method of teaching a child to read is to begin with words and sentences: i. e., with ideas and not with the alphabet. So the most approved method of teaching lip-reading to adults begins with a training of the mind to grasp ideas."

This shows how far he had travelled in three years since his first word-by-word approach to the subject. His great contribution to the teaching art has been the making of lip-reading instruction a psychological process. His teachers were not allowed to repeat single words, but always the sentence as a whole, so that, if

the pupil grasped only a phrase, he was able to build up the whole idea from the context.

Mr. Nitchie was the first to believe that lectures might be developed and adapted to lip-reading requirements, and thus offer intellectual stimulus as well as opportunity for practice. His talks on English literature in his school opened entirely new mental outlooks to many persons who had been cut off from intellectual contact for years. He trained several of his teachers in the finesse of this lecture work. Miss Jane Walker, now well known as a most delightful lecturer to the hard of hearing, received her early training from Mr. Nitchie. He soon turned over to her his English Literature course and began a new course on Current Events. The hundreds of lip-reading teachers, the country over, who now work up their "Timely Topics" each week have not a moiety of the intricate difficulties to contend with that Mr. Nitchie faced in those early days, when he was still formulating his method and working his way, step by step, toward the goal of *intelligent* practice material for lip-reading students.

He always encouraged social affairs at his school, which became a center for the hard of hearing in New York City. The lip-reading bees which were often a feature of these gatherings were his idea, and were promoted for entertainment merely, but they contained the germ of the formidable nationwide championship contests they have since become.

With all this work went the additional labor of preparing the field. Mr. Nitchie had to educate the hard of hearing themselves to a grasp of their own possibil-

ities, and he had to educate the public to understand the hard of hearing. Few persons had heard of lip-reading, and it was his task to make it known. In 1910 he was asked to address the Otological Section of the New York Academy of Medicine. Most of the leading aurists of the city were present. The subject of lip-reading was publicly and scientifically discussed, with the result that the work received a great impetus, and the doctors have ever since widely supported it.

Mr. Nitchie personally trained over 100 teachers, who departed to other cities to spread not only knowledge of lip-reading, but the larger phases of the work he had begun. Juliet Clark, who became his assistant in 1904 and who remained with the school fourteen years, was one of the first of those who absorbed his ideas. Another was Pauline Ralli, who is still an instructor at the school.

People continually brought Mr. Nitchie their personal and social problems. He helped them to the best of his ability, but the economic difficulties which they faced involved a systematic effort which one already overburdened teacher could not compass. The idea of a League had been in Mr. Nitchie's mind for a long time. The final spur toward bringing about concerted effort among the hard of hearing themselves was given by a deafened man who could not find work, and who said, after an interview with Mr. Nitchie, "If you never hear of me again, you will know what has become of me." Mr. Nitchie never did hear of him again, but the first League for the hard of hearing was born.

In December, 1910, the Nitchie School sent out 300 letters to pupils and former pupils proposing to establish a fund for free lip-reading scholarships in order that persons unable to pay for instruction might receive lessons and thus make the first step toward rehabilitation. Within a few days, over \$600 had been subscribed. The little group of workers organized. In February, it was incorporated as the Nitchie Service League. By 1913, it had 200 members, its own quarters, and several paid office workers. It provided lip-reading scholarships, conducted a handcraft shop, and opened an employment bureau for the deafened. Mrs. Milton Towne, its first president, was succeeded by Miss Annetta Peck, who gave to this work all her energy and ability. Miss Peck is now the Executive Secretary of the New York League, and the head of many of its vastly increased activities.

Mr. Nitchie characteristically felt that the League should not be too closely identified either with his school or with his name. About that time, a New York otologist, Dr. Harold Hays, began to advocate social work for the deafened. He wrote an article about it which was published in the *Volta Review*. He had then never heard of the League, but in a few months he had become the first president of the new organization, which had been rechristened The New York League for the Hard of Hearing, and dedicated to "every possible form of service to the deafened, known or yet to be discovered, without limitation of race, religion, sex, or age."

Mr. Nitchie had, before long, to cope with his own increasing ill health. He struggled against a series of



breakdowns, utilizing every vestige of strength in the effort to continue in his chosen line. He was jubilant, after his illness in 1916, when his physician allowed him two hours' work a day. These hours were devoted to normal work and lecturing in his New York school and later in the Chicago school, where he conducted a normal class and gave a series of lectures. That same winter he lectured in the Milwaukee and Pittsburgh schools.

His school motivated his life, and when he realized that death was approaching, his chief concern was with the continuation of his work. He persuaded his wife, against her will—for she felt that her talents lay in other directions—to take up the position he relinquished. Mrs. Nitchie had always been closely associated with the work. Her very courtship was conducted over the proofs of his first book, and, although a hearing woman, she became identified with Mr. Nitchie's efforts in behalf of the deafened. He trained her as a teacher, and made her promise to carry on the school. She kept this promise so well that, although his death, in 1917, made a gap in the lives of all those connected with the work, the school itself endured.

It is, therefore, appropriate that an account of Mr. Nitchie's life should not end with his death, but should blend with the continuation of his work. When, in 1918, six of his former teachers placed in the classroom a tablet in commemoration of its founder, the school was still a living organism. Mrs. Nitchie carried on the work ten years, improving the method in accordance with modern ideas, and revising each successive edition of the text books. She also wrote *Advanced Lessons*

in *Lip-reading*, which was published by the Stokes Co. in 1923.

In 1928, Mrs. Nitchie's own health gave out, and it seemed for a time that the school must come to an end, but public interest demanded its continuation, and it was incorporated under a board of trustees appointed by the Board of Regents of New York State.

Miss Mary V. Carney, formerly a high school and university instructor in history, came to New York from St. Paul to become director of the Nitchie School. The teaching staff is under the supervision of Miss Pauline Ralli, who was trained by Mr. Nitchie shortly before his death. The courses are being increased and the work extended in many directions. The school is an attractive social center, and something is always going on there, from the most serious lip-reading practice to impromptu bridge parties.

One idea which Mr. Nitchie attempted to incorporate in his work and which he abandoned as impracticable, was a correspondence course. This early set of lessons was made up of intricate analytic studies, and he soon saw that it would not work with untrained students, but he always cherished the idea of helping the isolated deafened.

At the 1929 Conference of the Federation of Organizations for the Hard of Hearing in Cleveland, Mrs. Laura Stovel spoke of the letters received at the Volta Bureau from persons who live remote from large centers and who wish lip-reading instruction. Miss Carney seized upon the idea, and set to work with the school staff to prepare a home study course. This has been

carefully planned with a view to making relatives or friends of the deafened person understand how to practice with him. There are simple but explicit directions for this practice, and an abundance of interesting material. If the course proves a success it will greatly extend the benefits of lip-reading instruction.

The school has done a good deal of field work, sending teachers to small places within commuting distance of New York. In Mattatuck, a village of 200 about 90 miles from New York, a class of six pupils, two men and four women, was formed. The teacher went twice a week all winter, and the pupils found great satisfaction in the lessons.

#### BIBLIOGRAPHY

Nitchie, Edward B. *Lessons in Lip-Reading for Self Instruction*, 1903, 1905, Revised, 1909.

*Lip-Reading Principles and Practice*, Frederick A. Stokes Co., 1912. Revised, 1919, by Elizabeth Helm Nitchie. Revised, 1930, by Elizabeth Helm Nitchie and Gertrude Torrey.

Grasping the Meaning as a Whole, *Association Review*, June, 1904.

The Spiritual Side of Lip-Reading, *Volta Review*, December, 1910.

Unemployment, the Tragedy of Deafness, *Volta Review*, September, 1911.

A Little Preachment on Opportunities, *Volta Review*, February, 1911.

The Eye as a Substitute for Deaf Ears, *Volta Review*, January, 1911.

How to Bear the Burden of Deafness, *Volta Review*, January, 1912.

Synthesis and Intuition in Lip-Reading, *Volta Review*, October, 1913.

- Some Assets of Deafness, *Volta Review*, July, 1913.
- Lip-Reading as an Art, *Volta Review*, September, 1913.
- Method versus System, *Volta Review*, December, 1914.
- The Lip-Reading Teacher's Equipment and Opportunities, *Volta Review*, December, 1914.
- Training Plus Experience, *Volta Review*, February, 1915.
- What a Deaf Adult Should Do to Acquire the Art of Lip-Reading, *Volta Review*, July, 1915.
- Principles and Methods of Teaching Lip-Reading, *Volta Review*, July, 1916.
- Nitchie, Elizabeth Helm. Edward Bartlett Nitchie, *Volta Review*, January, 1919.
- Advanced Lessons in Lip-Reading, Stokes Company, New York, 1923.
- Brand, Elizabeth. Aftermath: A Tribute to Edward B. Nitchie, *Volta Review*, December, 1917.
- Clark, Juliet. An Appreciation, November, 1917, *Volta Review*.
- In Memory of Edward Bartlett Nitchie (Details of the unveiling of a bronze tablet), *Volta Review*, December, 1918.
- A Tribute to the Memory of Edward B. Nitchie, Compiled by Fred DeLand, *Volta Review*, June, 1920.

## CHAPTER XV

### CORA ELSIE AND ROSE KINZIE

The Misses Kinzie are the stormy petrels of the lip-reading world. They fly far out to sea; they weather every gale; and when they land they indicate a barometric change.

Their greatest contributions to the work have been a graded method calculated to meet the requirements of various types and ages of pupils, and a specific technique which raises instruction in the subject to something more nearly approaching an exact science than it had hitherto become.

Miss Cora Kinzie, who specializes in the normal teaching, is amazingly articulate. She not only comprehends what she does in her work, but she knows how to put it into exact descriptive words so that others may comprehend also. Nothing in her lesson procedure is left to chance, but everything is polished and finished and sharpened to a point.

She has achieved this at the cost of considerable labor and renunciation. She was training to become a medical missionary when encroaching deafness forced her to interrupt her course in order to study lip-reading. Her first idea in taking up this study was merely that

it would help her to go on working for her degree, but when, at the end of her second year at the Women's Medical College of Pennsylvania, she felt her *good* ear weakening, she turned her enthusiasm in the direction of becoming a teacher of the deafened.

It was in the spring of 1913 that she began lip-reading lessons in Miss Bruhn's school. The following season she took the normal course, and in April, 1914, she opened the Muller-Walle School of Lip-Reading in Philadelphia. Very soon she began to feel that the profession offered more possibilities than she had at first conceived, so she resolved to learn all that could be learned about it. She wrote to Mr. A. J. Story, headmaster of the School for the Deaf and Blind, at Stoke-on-Trent, England, and also to Mr. Nitchie. Mr. Story replied that he had no course of instruction for the adult deafened, but Mr. Nitchie agreed to take Miss Kinzie as a normal pupil one day a week. She commuted between Philadelphia and New York, carrying on her own school and its increasing activities, and at the same time studying under Mr. Nitchie's personal instruction.

She conceived the idea of combining certain principles of the Muller-Walle and Nitchie methods, taking from Miss Bruhn's course the classification of introductory sounds and from Mr. Nitchie's the basic principles of his psychological theory. Upon these fundamentals, she and her sister, Miss Rose Kinzie, who had by this time joined her in her work, superimposed their own developing method. In 1917 the name of the school was changed to the Kinzie School of Speech-Reading.



The sisters went at their work with dynamic energy, and with an imaginative force that leaped ahead and mowed down paths before them. They admitted no defeats, accepted no impossibilities, and their influence was felt over a wide area. The school and the Speech-Reading Club which grew out of it increased by leaps and bounds. Whirlwind campaigns were characteristic of the Kinzies. They did nothing on a small scale. A clubhouse was immediately rented, and the interior redecorated and furnished for club purposes. A drive for members resulted in the addition of several hundred. One afternoon the club received notice that unless they could decide at once to buy the house for \$50,000 they would have to move, as another purchaser had been found. Miss Kinzie learned that if she could raise \$5,000 by the next afternoon and make a settlement within two months, the club might remain there. She called the board of directors together that night. They decided to buy the house. A meeting was called the following week to open the drive. Within a few months the campaign had netted over \$30,000 and the membership of the club was increased to 700, the number later reaching between 800 and 900.

When, in 1919, word went about that the *Volta Review* must suspend publication for lack of support, the Kinzies threw their energies into an effort to raise funds. They unfurled across the length of their school a gigantic sign: "Have you subscribed for our magazine?" They organized a circus to be held at the Bellevue-Stratford in Philadelphia, and they induced everybody, far and near, to support the circus by taking part

in it, buying tickets for it, or in some way helping along its publicity. The entertainment was a great success and the campaign for the *Volta Review* netted over \$3,000.

In 1924, following the illness of her sister, Miss Cora retired from active professional work to develop the Kinzie method of instruction along new lines. The school was sold to Mrs. John E. D. Trask, who has continued to carry it on according to the principles of the Kinzie method.

The Misses Kinzie themselves disappeared from the lip-reading world for nearly six years. In the spring of 1929, they suddenly reappeared, waving new banners. They announced the publication of a text book which was to be the first of a series. They had produced a graded system of lip-reading instruction for pupils of all degrees of attainment and ability. During the years of their retirement, they had built up their material step by step, weeding out difficult or uninteresting matter, arranging and rearranging, making nine separate grades of what had previously, in the procedure of most lip-reading schools, been rather loosely classified as "beginners," "intermediate," and "advanced." They had also expanded their system to include the instruction of the hard of hearing child. In order to prepare herself for this special work, Miss Rose Kinzie had spent a number of months at the Virginia School for the Deaf, studying the methods applicable to children. A training course for teachers of children was included in the normal course.

A Kinzie School was opened in New York and another in London. These schools are now in their third season: that in London continuing from April to September, and the New York School from September to April.

It is their combination of foresight and attention to detail that has made the Kinzies remarkable in their field. With all their high flights, their far flung battle lines, they never permit any sketchiness or anything slipshod. They consider every move beforehand, and work out every approach. In training their normal pupils, they give weight to the smallest thing which may make a teacher's work more efficient, and they eliminate relentlessly every mannerism, every hesitation that might retard a pupil's progress. The table is arranged so that there is no fumbling with books or papers. The material is prepared beforehand down to the last question. The normal pupil may complain that she works her head off memorizing her class and lesson material, but when she has a pupil before her she knows exactly what to do and is equipped to do it unhesitatingly.

The first three grades of the newly developed Kinzie Method are adapted to the needs of children. The fourth is for adult beginners. Grade IV Supplement is a simplified form of Grade IV. Grades V, VI, VII, and VIII comprise advanced work for adults who have either completed Grade IV or have demonstrated their ability to cope with more difficult material.

The lessons for children are designed to train the hard of hearing child to read the lips subconsciously.

An effort is made to stimulate his imagination by games, finger plays, pictures, objects, and dramatization of stories. Attractive charts are used with small children. These involve the simplest material:

Show me the baby.  
Show me the mother.  
Show me the baby's mouth.  
Show me the mother's shoe.  
Show me the mother's watch.

Action plays lead to work with verbs.

Show me how the birds fly.  
Show me how the baby birds open their mouths.  
Show me how mother holds the baby.  
Show me how the baby waves his hand.  
Show me how mother washes your face.  
Show me how mother puts the baby to sleep.

For rhythmic work simple little poems are given:

Hushabye baby,  
Go to sleep.  
Shut your eyes  
And do not peep.  
Mother will watch you  
While you sleep  
Hush-a-bye, hush-a-bye baby!

I am an old woman.  
I have so many children  
I don't know what to do.  
What is my name?

I am a little girl.  
I lost my sheep.  
I went to sleep.  
My sheep came home.  
What is my name?

Once there was an elephant,  
Out at the zoo;  
Another big elephant came,  
And then there were two.

Once there were two robins,  
Up in a tree;  
Another little robin came,  
And then there were three.

Once there were three fishes,  
Swimming by the shore;  
Another little fish came,  
And then there were four.

Games are played matching cards with pictures of objects the names of which have been read from the lips.

A bumblebee	A policeman
A grasshopper	A sewing machine
A pussy willow	A wheelbarrow
An apple blossom	A hippopotamus

All the grades comprise quantities of carefully thought out and tested practice work. Even the simple material for Grade IV supplementary work, which is to be used with the most "difficult" adults, is designed to interest the pupil mentally and hold his attention.

What do you wish for?  
Do you wish to be wise?  
Do you wish to be famous?  
Do you wish to be happy?  
Do you wish to be beautiful?  
Do you wish to be wealthy?  
Do you wish to be popular?  
Do you wish to be charming?  
Do you wish to be handsome?

Do you wish to be vivacious?  
Do you wish to be fashionable?  
Do you wish to be suave?

I wish I were as wise as father.  
I wish I were as beautiful as mother.  
I wish I were as happy as the baby.  
I wish I were as famous as George Washington.  
I wish I were as rich as Rockefeller.

The farmer's wife was born on a farm.  
The farmer's wife is a very fine woman.  
The farmer's wife has a very fine face.  
The farmer's wife is very shy.  
The farmer's wife is very cheerful.  
The farmer's wife is very mischievous.  
The farmer's wife is very thrifty.

I saw the fisherman's wife on the beach.  
The fisherman's wife is fond of the sea.  
The fisherman's wife has a very sweet face.  
The fisherman's wife is very frivolous.  
The fisherman's wife is very saucy.

I saw the professor's wife at the art museum.  
The professor's wife is very beautiful.  
The professor's wife is very fashionable.  
The professor's wife is very charming.  
The professor's wife is very fascinating.

I saw the preacher's wife at church.  
The preacher's wife is very pious.  
The preacher's wife is very serious.  
The preacher's wife is very faithful.  
The preacher's wife is very sympathetic.  
The preacher's wife is very philanthropic.

In striking contrast to this extremely simple material,  
are the long and intricate sentences for very advanced



pupils. These offer a rhythmic flow of words that may be memorized by the teacher and repeated fluently, affording the pupil practice in reading a rapid stream of speech.

*farm*

Calvin Coolidge was at his father's farm in Vermont when he received word, at about 2:30 A. M., of the death of President Harding, and was sworn into office shortly after by his father, by the light of an old-fashioned kerosene lamp.

*wave*

When Abraham Lincoln rose to speak at a political meeting early in his first presidential campaign, a wave of amusement swept over the audience because of his awkward appearance, but it soon became evident to many who were present that he was to be the next president of the United States.

*tall*

The American who visits London for the first time may feel some disappointment on arriving because of the absence of tall buildings, such as he is accustomed to seeing in the United States, but he soon falls under the spell of the old historic city, where for a thousand years the Anglo-Saxon race has manifested the best fruits of an unsurpassed civilization.

*club*

The qualifications for membership in the Caterpillar Club, which is probably one of the most exclusive clubs in the United States, are rather more exacting than those of most organizations, one's eligibility depending upon his having made a forced emergency leap, by means of a parachute, from an aeroplane in flight.

*sleep*

When Rip Van Winkle awoke from his long sleep in the mountains, and returned to the village where he had always been a familiar character, he could not understand how it was that no one seemed to recognize him, and after many vain efforts to establish connections with his former associations, he cried out in despair, "Does nobody here know Rip Van Winkle?"

*name*

The name of William Shakespeare is without doubt the greatest in the world's literature, as no other writer can compare with him in his wide range of knowledge, his beauty of expression, his insight into human nature, and his marvelous understanding of many conditions of life.

## BIBLIOGRAPHY

Kinzie, Cora Elsie. The Value of Speech-reading for the Deaf, *Volta Review*, August, 1917.

The Kinzie Method of Speech-reading, *Volta Review*, October, 1920.

The Colors of the Rainbow, Proceedings of the Third Annual Meeting of the Federation, June, 1922.

The Practical Side of the Kinzie Method, Proceedings of the Third Annual Meeting of the Federation, June, 1922.

Kinzie, Cora Elsie, and Rose. The Kinzie Method of Speech-reading for the Deaf, *Volta Review*, May, June, July, August, September, 1918.

Lip-Reading for the Deafened Adult, John C. Winston Co., Philadelphia, 1931.

## CHAPTER XVI

### LIP-READING GROWS AND SPREADS

The work of teaching lip-reading to adults, which had remained in the chrysalis more than four hundred years, and then burst suddenly into life, continued, with the advance of the twentieth century, to take on increased energy. Graduates of the Bruhn and Nitchie schools had begun, before 1910, to start classes in the larger cities throughout the country. Knowledge of lip-reading and its possibilities spread. Hard of hearing persons who had been almost entirely cut off from normal social activity learned that lip-reading was a practical help to them and that schools where it was taught afforded them a social outlet.

Schools increased in number with extraordinary rapidity. In October, 1913, there were only three advertised in the pages of the *Volta Review*, Miss Bruhn's, Mr. Nitchie's, and that of Miss Mary Dugane, in New York City. In December, 1917, four years later, there were advertised forty-eight schools in twenty-six different states.

Every teacher who started one of these new schools was in her field a pioneer, and the problems she faced were somewhat different from those which confront the

teachers of today. To be sure, she had little competition to deal with, but on the other hand, few persons knew what lip-reading was, and she had to educate her public. She had to explain the functions and scope of the art, and demonstrate its possibilities—and quite often its limitations—with herself as Exhibit A.

She set to work in undeveloped territory, and she had to hew her own path and make most of her own tools. Her profession had very little history or background. Her text books were rudimentary. She had no successful and skilful graduates to visit her classes and spur the beginners, for all the pupils were beginners, and most of them had to be shown what lip-reading could do for them and what they could do with lip-reading. Besides the intellectual work of gathering material for practice, she had to give spiritual help to persons who needed to be lifted out of mental depression before they made any real lip-reading progress.

It is hard for us now to visualize the extent of the ignorance and indifference the early teachers encountered. One who started a class in Kansas City found it difficult to convince some persons that lip-reading had nothing in common with faith healing or spiritualism. A pupil who arranged for lessons subsequently cancelled her engagement because the minister of her church "feared it might have something to do with Christian Science." A year or two later a bill came up in the Missouri legislature in regard to mediums and clairvoyants. Among the profound remarks emitted on the subject was that of the lawmaker who said, "There's

something funny about all this. I know a woman who is as deaf as a post. She can't hear a sound, but she can tell what you say just by looking at you."

This idea of magic in connection with lip-reading was not altogether confined to the uninformed. Pupils presented themselves for lessons expecting to be endowed almost at once with ability to understand what everybody said, and they were disappointed and discouraged when they found that lip-reading was a slow business. It was the teacher's job continually to spur their interest during the first inconclusive weeks of practice.

Some of these early teachers were inexperienced girls, who, handicapped by their own deafness, ventured into a new field with nothing to guide them. Juliet Clark, for instance, had barely finished her normal course in the Nitchie School when she was sent off to Mobile, Alabama, to teach a class. She had first to cope with her own family, who would not accede to her going so far away until they had investigated the condition and antecedents of the family with whom she was to board, and had looked into the sanitary code of Mobile, as well as various other matters. It was after what seemed to her an adventurous trip by boat and train—she was the only woman in the sleeping car, and what would her family have said!—that she landed in Mobile "in the dark of a December evening," frightened and bewildered. But at least she did not have to begin drumming up pupils, for her class of eight was all ready for her, and the little school she started continued for two years until she returned to New York to teach in the Nitchie School. The interest in lip-reading which she fostered endured so

well that when the Federation field workers visited Mobile in 1930, more than twenty years afterwards, they found there the nucleus of a league.

The San Francisco Exposition in 1915 helped to educate the lip-reading public. Mrs. John E. D. Trask had gone to California in 1914 with her husband, who was in charge of the art exhibits at the Exposition. Mrs. Trask was a normal graduate of the Nitchie School, and Mr. Nitchie asked her to represent the school at the fair. Mr. Alvin E. Pope, Superintendent of the New Jersey School for the Deaf, was chief of the department of education, and he became interested in the idea of giving demonstrations of lip-reading. He had a room built in the education building, in one side of which was a large window through which visitors could watch the classes without disturbing the pupils. Mrs. Trask began in April, 1915, with two classes of four pupils each. Anyone who wished to try lip-reading was admitted to the class. Some were only casual visitors who took one or two lessons. Others, who had come to spend a few days at the fair, remained several weeks in order to continue their lip-reading practice. From April to October, Mrs. Trask taught nine different groups of beginners, and gave lectures twice a week to practice classes. So many visitors wished to ask questions that an assistant was required, and Mrs. Theodore Poindexter remained with the exhibit all summer, giving out hundreds of leaflets on lip-reading, and the names and addresses of teachers in different parts of the country. The jury of awards of the Exposition visited the classes



and awarded Mrs. Trask a gold medal and also a medal of honor.

California took kindly to lip-reading. After the fair, Mrs. Trask conducted a private school in San Francisco for several years. Miss Lucy Ella Case had started classes in Los Angeles some years previously. Miss Coralie Kenfield and Mrs. Theodore Poindexter, who had begun teaching in Oakland, moved their school to San Francisco and became leaders in all the new movements which grew out of the schools of lip-reading.

Until 1918, practically all the lip-reading classes for adults in the United States were conducted by adherents of the Bruhn or Nitchie methods. In February, 1918, the Kinzie School announced a normal course. In 1919, Clara Ziegler and Anna Staples opened the New England School of Speech-Reading in Boston and offered instruction in the Kinzie Method. Their school has been from the first an example of the steady development and improvement in methods of teaching, particularly in the normal department.

It would be impossible to catalog all the schools of lip-reading which have sprung up in the United States during the last twenty years. Such a catalog would not be interesting, even to the initiate. Nor would it express the value of these schools to the hard of hearing—an intangible value that outweighs the practical benefit of even the smallest improvement in lip-reading facility.

We speak of the selfless dedication of the old, legendary teachers of the deaf: Ponce de Leon, de l'Épée, Sicard. We relate the achievements of Mr. Gallaudet and of the pioneer American oralists: Miss Rogers,

Miss Fuller, Miss Yale. But quite as great examples of unselfishness, devotion, and single-mindedness are to be found in schools of lip-reading today.

The amount of energy, ability, and concentration required to build up such a school and keep it going, to find pupils and keep them interested, to maintain a high quality of work, to remain in touch with the achievements of other teachers, to attend conferences of the hard of hearing—and meantime to make financial ends meet—can hardly be put into words. The teacher of lip-reading never has a chance to rest on her laurels, even if she is accorded them. New ideas have to be incorporated in her work every year, every month. In the intervals between classes, she has to rake history and literature, drag newspapers, periodicals and libraries, to find attractive material for her classes. And most of this material, after she has laboriously gathered it, is as ephemeral as a newspaper column, and must be prepared all over again in a day or two.

Few persons who have not tried it have any idea of the literary force that goes into the writing of a lip-reading exercise or the dramatic and spiritual force that accompany its rendition. It requires a special knowledge of speech with relation to its visibility, a special knowledge of language with relation to lip-reading psychology, and a very special knowledge of human character which is more important than all the rest.

When a teacher of speech-reading faces her class, she literally pours out for their benefit her experience, her comprehension, and all her personal charm. She herself

probably makes only a bare living, but her school becomes a clearing house where a handicapped and deeply discouraged group of people can exchange some of their troubles for courage to go ahead.

#### BIBLIOGRAPHY

Case, Lucy Ella. Lip-reading at the San Francisco Exposition, *Volta Review*, November, 1915.

## CHAPTER XVII

### THE JENA METHOD IN GERMANY AND THE UNITED STATES\*

In the historic university city of Jena, Germany, Karl Brauckmann, like his father before him, directs his own school for deaf and deafened children. Here, also, he receives a limited number of deafened adults and trains teachers for them.

Dissatisfied with the current methods of teaching lip-reading, he began, about 1900, to experiment with new and radically different ways. He worked out new principles and a new technique of applying them, and in 1925 he published two small books on lip-reading for the adult deafened.

In the first of these he reviews and criticizes the twelve German books on lip-reading published between 1841 and 1925. He points out that while a number of so-called methods are in use they are in reality all one at bottom. All include the analysis of visible speech movements, and the practice of these movements in syllables, words, and sentences. But since only fifty per

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\* As the present writer has had no opportunity to see the Jena method in operation, Professor Jacob Reighard of the University of Michigan kindly consented to supply the material for this chapter.

cent or less of speech movements are visible, the pupil must supply mentally those that are not seen and so combine them with those seen as to make sense—the psychological process of perception known in lip-reading as synthesis. This is trying both on the eyes and on the nerves. Teachers have recognized these difficulties and have tried in various ways to overcome them by training the eye, exercising the mind, or reinforcing the will. But all these methods have assumed that the eye affords the only sensory channel available to the deafened lip-reader. One term, the pure visual method, should be applied to them all.

Mr. Brauckmann points out that speech is basically a movement process. It consists of series of movements, each of which results in a sound. If a man without hearing could in some way become aware of all the movements of speech he would understand as well as though he heard. Mr. Brauckmann asks whether there is not some way by which a deafened person may become aware of all the speech movements—both the visible and the invisible. He calls attention to the muscle-sense, the kinaesthetic sense (*kinaesthesia*), the feel of movement, and asks whether this cannot be utilized.

Speech movements, like others, are effected by the contraction of muscles. Between the fibres of the muscles are sense organs which are pressed upon and stimulated as the fibres of the contracting muscle shorten and thicken. Along nervous paths the stimulated muscle sense organs send “messages” to the brain, and these make us aware of the contraction. We feel it. One has but to close the eyes and move an arm in various ways

to become aware of this feeling of movement and position in the unseen member. A similar experiment with jaws, lips and tongue will demonstrate that their movements can be felt also. There are more than seventy muscles involved in the production of speech sounds, and for each separate sound a different group of muscles contracts, or the same group contracts in a different way. Hence, corresponding to each speech movement there is not only a characteristic sound but a characteristic muscle sensation, a sensation complex.

To the muscle sensation of speech are added the sensations of touch, as when the lips are brought together or the tongue touches teeth or palate. These combinations of muscle and touch sensations we may call speech sensations. Speech, therefore, has three forms, the *motor*, the *auditor*, and the *sensation* form. Each affords a complete language and we may understand speech as well by one as by the other. If the deafened could use the speech sensation as a substitute for auditory sensation they could understand almost as well as if they heard.

Unfortunately, speech sensations do not travel from man to man through the air as does sound. But it occurred to Mr. Brauckmann that if a man without hearing could make the same speech movements as a speaker, speak *with* him, he would have the same speech sensations—would feel the words as the speaker felt them, and would understand. It remained to devise a system of practice by means of which the deafened man, learn to talk to himself subvocally as another spoke, would



become aware of his own speech sensations, and through them understand the speech of others.

This practice, which Mr. Brauckmann describes in his second book, is based on the fact that conversational speech is automatic—subconscious. When a man sits down in a chair, he glances at it, and without further attention on his part, the proper muscles contract in the order necessary to seat him. In the same way, he trips down a familiar stairway, or walks or dances. Through long practice his muscles, under the subconscious control of the nervous system, are able to perform automatically these familiar series of movements. Through the eye he gets the initial stimulus, the sight of chair or stair, which sets the movement series going. The rest is automatic. So the skilled typist is able to produce perfect copy without looking at the keyboard, and with only casual glances at the original. The trained pianist plays a difficult piece with only a glance now and then at the notes. In all these cases, series of movements are set going by stimuli received through the eye and are kept going by the muscle sensations, with only an occasional further visual stimulus.

Now it happens that speech, in its motor form, consists of long-practiced series of movements, comparable to those of the pianist or typist. When we speak we do not ordinarily select words and put them together. Stimulated by some sight or sound, or some idea, we express ourselves in a series of vocal movements performed automatically. No thought is given to the speaking process. The organs of speech may be thought of as a machine—a speech machine, which, set going in one

way, runs through a certain series of movements, while, set going in another way, it runs through another series.

Two men face one another—two speech machines. One man speaks; the machine begins to move. The other man does not hear, but he sees some of the speech movements of the other, and at once his own speech machine begins to make these movements, and the series of movements is so familiar, so long practiced, that his machine runs through the whole of it though he sees only a part. And as his vocal organs execute the movements of the series he feels them; his speech sensations are the same as those of the speaker and as complete, and they enable him to understand.

A systematic drill has prepared the way for this coördination of mind and sense. In the first part of the course, the pupil memorizes series of meaningless syllables, and then, facing the teacher, and looking at her face, he tries to speak the series at the same time that she speaks them. His gaze includes gesture, mien, and facial expression, but he does not try to see individual movements of the mouth. He merely looks at it effortlessly. Yet at the end of a week or two of drill he can say with the teacher many series of syllables. Soon he can do this not only with syllables in pre-arranged, memorized order, but with those in random order. During this time his attention has been directed from seeing to feeling and as every possible sound and sound combination is introduced, he has come to know the feel of each—its speech sensation.

The syllables are spoken rhythmically, in musical tempo, and this is accompanied by movements of body,

arms, legs, hands, head, marching and dancing. It is play rather than work, and the rhythmic movements relieve the muscular tension to which the deafened are so greatly subject. At first the student practices with full voice and full movement of the vocal organs, but gradually the use of voice and speech movement on the pupil's part is abandoned, yet the student still has the speech sensations. After a time meaningful phrases or series of words may be interpolated into the syllable drill, counting days of the week, months, dates, money, weights, measures, brief phrases. It is found that the student can say these also with the teacher, and can understand them.

In the second part of the practice course, phrases and sentences are used. Much of the matter is previously memorized by the student. All is spoken to him, nothing read. Indeed, no printed matter is used in class. If the syllable drill has been thorough, imitation is now a habit, and automatically the student feels what the teacher says, has the same speech sensations, and his attention may be turned to the meaning.

The third part of the practice course is devoted to spontaneous speech—talks, lectures, dialogues. This may be based on matters of local interest. The university, the museums, historical events, etc., afford topics, and their discussion is preceded by excursions to the institutions or localities. With minds filled with what they have seen and heard, teachers and students talk. There is never any reading. As far as possible, the talking is left to the spontaneous outpouring of minds stirred by recent experiences. The result is natural

speech. Above all things, since the attention is not specifically directed to the movements of the mouth, there is no exaggeration of speech movements as too often occurs in conversation among the deafened.

The eye plays always a secondary role. It starts the speech machine and gives it an occasional further impulse, but the machine runs, for the most part, of itself, automatically through its indrilled series of accustomed movements. It functions subconsciously almost from the start. The details of the visible movements of speech are not called into consciousness, and no other mental effort is required than attention to speech sensations.

The advantages are: relief of mental stress and of muscular tension; increase of body suppleness; improvement of voice and enunciation, in addition to the acquirement of speech-reading ability.

In the fall of 1926, Miss Bessie L. Whitaker was called from her Denver school to take charge of the newly established division of speech-reading for adults in the department of special education of the Michigan State Normal College at Ypsilanti. Miss Anne Bungler was appointed her assistant. Miss Whitaker had taken an A. M. degree from the University of North Carolina, and had then engaged in teaching until stopped by increasing deafness. Before opening her Denver school, she had spent two years in the Nitchie and Bruhn schools. She was the champion of long continued practice courses, and the instruction at Ypsilanti began with a nine months' course in the pure visual method of speech-reading.

Meantime, Professor Jacob Reighard of the University of Michigan had obtained Brauckmann's recently published German booklets on the Jena method, had translated them into English and adapted the method to use in that language. He suggested that the Jena Method be tried, and supplied copies of his translation. At this time, Fridette Amsler, a former pupil of Mr. Brauckmann, was temporarily in Washington in the employ of the Volta Bureau. She was induced to come to Ypsilanti, and there for two weeks she demonstrated the method with great success.

It has now been used with fourteen classes. The regular course lasts three months, with two lessons and two practice hours daily. About sixty individuals have been under instruction, many of whom have remained for a second or third term, some for a longer time. Pupils have been of all ages up to seventy, of all degrees of deafness up to totality, and unequal in previous education and in psychological reaction to deafness.

Within the past year the Jena Method has been used with classes of children in the high school attached to the college. Two normal graduates of the Jena course at the college began last fall to teach lip-reading to classes of deafened children in the public schools of Flint, Michigan.

The results in all these classes are so successful as to be most encouraging. However one may explain these results theoretically, they are real. The first attempt to use the method in English has more than justified itself. It must be seen to be appreciated.

## BIBLIOGRAPHY

- Aiken, Fred. 1930. Testimony from Montana. *The Auditory Outlook*, Vol. 1, pp. 278 and 290.
- Amsler, Fridette. 1927. The Jena Method of Teaching Speech Reading. *The Volta Review*, Vol. 29, pp. 107-109.
- Bergh, Marie. 1927. The Lip-reading Problem According to Brauckmann (Translated from the German by Jacob Reighard). *The Volta Review*, Vol. 29, pp. 268-273.
- Brauckmann, Karl. 1923. Die Verkehrsfähigkeit der Gehörleidenden und das Absehproblem (The Conversational Skill of the Hard of Hearing and the Lip-reading Problem). Jena, Gustav Fischer.
- Brauckmann, Kahl. 1925. Absehunterricht nach dem Janaer Verfahren (Instruction in Lip-reading by the Jena Method). 8 vo. 35 pp. Jena, Gustav Fischer.
- Bunger, Anne M. 1927. Rehabilitation through Speech-reading. *Rehabilitation Review*, Vol. 2. p. 238, 76 pp. 2 diagrams.
- Bunger, Anne M. 1928. On Being Converted to the Jena Method. *The Volta Review*, Vol. 31, pp. 703-708.
- Elliott, Bernice. 1930. Speech-reading as a College Course. *The Journal of the National Education Association*, June, 1930.
- Reighard, Jacob. 1927. The Jena Method of Teaching Speech-reading—How It Works. *Rehabilitation Review*, Vol. 2, pp. 239-243.
- Whitaker, Bessie L. 1927. Speech-reading for Rehabilitation. *Rehabilitation Review*, Vol. 2, pp. 229-237.

Bunger, Anne M. 1927. Speech Reading. In  
 M. L. L. pp. 7-81.



## CHAPTER XVIII

### LIP-READING IN THE NIGHT SCHOOLS

Becoming aware of lip-reading, in some cases made aware of it by the deafened themselves, boards of education began to include it among the subjects offered by the evening classes in the public schools. In 1911, Miss Virginia Osborn, principal of the Fechheimer Day School for the Deaf in Cincinnati, arranged a course of evening lectures, travel talks, nature talks, and discussions of current events. A lecture was given each week in the public library, and was designed to demonstrate to hard of hearing adults the possibilities of lip-reading. The attendance was surprisingly large, and out of these lecture classes, Miss Osborn formed lip-reading "continuation classes," as she called them, which were sanctioned and supported by the Board of Education. After 1915, lip-reading was established as part of the regular evening school curriculum.

In 1912, Miss Katherine Ashelby, a teacher of the deaf in Chicago, had a private pupil, Mrs. Murray, who came to her for lip-reading lessons. Mrs. Murray could not afford the tuition fee, and Miss Ashelby suggested that she write to Mrs. Ella Flagg Young, the

Superintendent of Schools in Chicago, stating her case and asking that lip-reading classes be founded in one of the evening schools. Mrs. Young became interested, and replied that if six or more pupils could be enrolled, a class would be formed. Mrs. Murray did not know of other hard of hearing persons, but she advertised in the *Chicago Tribune*, requesting all those who desired to join an evening class in lip-reading to send their names to the principal of the Burr School. More than sufficient replies came in and the formation of a test class was authorized. This class met four times a week, and within two weeks the number of pupils regularly attending made it necessary to employ a second teacher. In the fall of 1913, three free classes in lip-reading for the adult hard of hearing were established in widely separated districts. The teachers were all recruited from the Chicago day schools for the deaf.

Miss Mary Woodrow, who was a pioneer in many branches of work for the deaf and the hard of hearing, took the initiative in starting classes for the deafened adult in Brooklyn. Trained by Miss Warren, she had taught speech-reading in Boston as early as 1899. She started a Warren school for adults in Macon, Georgia, and one for both children and adults in Atlanta. Miss Bruhn went to Miss Woodrow for her own first instruction in lip-reading, but only a few years later Miss Woodrow became a pupil of Miss Bruhn, and adopted and taught the Muller-Walle Method. In 1913 Miss Woodrow volunteered to teach lip-reading in the public evening schools in Brooklyn. The following year the

Board of Education recognized her services and began paying her a salary.

Miss Louise Morgenstern (now Mrs. Kurt Neuschutz) did the pioneering for the free evening classes in the New York public schools. She not only convinced the Board of Education of the possibility of such work, but undertook to teach the first class organized "in the uttermost end of Manhattan."

Mr. Nitchie became interested in the public school work, and when, in 1915, he was asked to send a teacher to take over the class Miss Morgenstern had started, he proposed to Miss Estelle Samuelson that she undertake the job. She was a very young hard of hearing girl, who had received her certificate as a teacher of hearing children just before her encroaching deafness led her to take up lip-reading. She hesitated to attempt the night school work, as the school was far over on the East Side of New York, and her family objected to her doing night work in such a locality. She finally took the class, however, and was a success from the start. She was so small that she had to sit on a high stool during the lesson period. but the class was a lively one, and made such hilarious noises that the principal moved them to a room at the top of the building. When Miss Samuelson first arrived at the school, this principal, Mr. Isaacs, asked her how he could help her. She replied succinctly that he could help her best by keeping out of the class room, for, as she phrased it, "she was not yet strong enough" to undertake to combat interference as well as the difficulties of teaching. Mr. Isaacs kept away a few evenings, and then, growing curious, he be-

gan to visit the classes, and soon, with cotton in his ears, he was sitting with the others as a pupil of lip-reading.

The evening classes in New York are especially difficult, because of the difference in nationalities of the pupils and the extraordinary range of their degree of education. In one class conducted through the winter of 1930-31 by Miss Ida Becker, in Public School 93 were seven nationalities and a good many more than seven degrees of culture, for the pupils ranged from a doctor of philosophy to a man who could neither read nor write.

Boston opened free lip-reading classes in 1917, under Miss Sally Tripp, a teacher in the Horace Mann School. Denver followed in 1918, St. Louis in 1919, Buffalo in 1920. In 1922, ten years after the first class, the total enrollment in various cities was 1101. These public school classes are increasingly popular. They are now established in 96 of the larger cities. The majority are taught by hard of hearing women who are themselves dependent on lip-reading as a means of communication.

The work for deafened soldiers greatly stimulated the public interest in lip-reading. In 1918, classes for army men were started at Cape May under Miss Enfield Joiner and eleven other teachers all of whom were recruited from schools for the deaf.

The classes continued for over a year, during which time 108 pupils were taught. All these represented advanced cases of deafness. Many were totally deafened.

Only about a fifth of the men had gone beyond grammar school. About a fourth of them were illiterate. Some of them were shell shocked. None of them were at first interested in lip-reading. They wanted to be mustered out of the army and go home, but because they were compelled to work, they worked, and the results formed one of the best examples ever shown of what could be accomplished through concentrated practice in lip-reading.

The training given these men was intensive and personal. Each pupil had the sole attention of one teacher for two forty-five minute periods in the morning and one half hour period in the afternoon. "The plan was to saturate him with lip-reading." All other activities were subservient. The average time for completing satisfactorily the required course was about ten or eleven weeks. The pupils were graded according to their attainments and 74 per cent of them were able to understand at least 60 per cent of what their teacher said.

The degree of their deafness or the amount of their general education had little or no bearing on the result. One colored man, who had become totally deaf very suddenly, had grown so sluggish mentally that he had almost lost his speech. The first forty-five minute lesson was consumed in getting him to move a small object on a table. He exhibited no consciousness of what was required of him until he was shown a bright thimble. He seemed to recognize this and tried to say what it was. From that time, his speech began to return, and he became a phenomenal lip-reader. His skill was so

great that he could repeat words given him of which he had no knowledge, even French and Italian phrases.

In relating incidents of this work at the Fourth Federation Conference in Chicago in 1923, Dr. Gordon Berry remarked that he had followed some of these men into civil life and that they had for the most part secured employment and some of them were receiving higher pay than they had earned before they became deaf.

All private lip-reading schools gave generously to the work for deafened soldiers, and all leagues and guilds offered free classes. Juliet Clark and Jane Walker prepared a text book designed especially for their needs. Martha Bruhn offered a simplified book of practice material, which she also translated into French for the benefit of the French soldiers.

The world war had its influence in bringing hard of hearing people out of corners and into active work and active social life. Many deafened persons were accepted for government positions and other work which they retained after the war. They began to acquire a new social consciousness. From helping hard of hearing soldiers, they began to help others who were hard of hearing. They found that they could accomplish more if they organized. From the small gatherings at schools of lip-reading, grew clubs and leagues and guilds, and these began to get into touch with one another. Organizations begot organizations. The deafened were suddenly alive to their own needs and possibilities.



## BIBLIOGRAPHY

- Berry, Gordon. Deliberate Deafness—Proceedings of the Fourth Annual Federation Conference, June, 1923.
- Blake, Clarence J. Speech-reading for the War Deaf, *Volta Review*, June, July, August, 1918.
- Miss Bruhn's Lessons in Speech-reading for Deaf Soldiers, *Volta Review*, December, 1918.
- Clarke, Juliet D. and Jane B. Walker. Lessons in Lip-reading for Deaf Soldiers, *Volta Review*, April, May, June, July, August, October, November, December, 1918.
- Hosick, Lou H. Lip-reading in the Chicago Public School Evening Classes, *Volta Review*, October, 1915.
- Morgenstern, Louise. Teaching Lip-reading in Public School Evening Classes, *Volta Review*, July, August, October, 1915.
- Lip-reading in the Public Schools, editorial, *Volta Review*, October, 1915.
- Lip-reading as part of the Public School System, editorial, *Volta Review*, June, 1915.
- Teaching Lip-reading in Cincinnati, editorial, *Volta Review*, November, 1915.
- Newlee, Clara. Lip-reading for Adults in Public Schools, Proceedings of the Fourth Annual Federation Conference, 1923.
- Unit for the Teaching of Lip-reading to Soldiers, *Volta Review*, August, 1917.

## CHAPTER XIX

### THE FEDERATION

The New York League for the Hard of Hearing, born in 1910, became a powerful organization for social service. The opportunities for social contact which it offered to hard of hearing persons were steadily increased, and the practical help it gave in the way of vocational advice, free lip-reading classes, information as to hearing devices, and so on, became so valuable that news of these activities spread through the country. Teachers of lip-reading, and other hard of hearing persons, visiting New York, came to the League, and carried home word of its achievements. The deafened in other cities began to want leagues and clubs of their own. The Speech Readers' Guild of Boston was born in 1916. Soon afterwards the Chicago League came into being. The Leagues in Los Angeles and San Francisco, and that in Newark, N. J., were formed the following winter.

These new associations prospered and grew surprisingly. Free lip-reading classes brought together hard of hearing people who desperately needed social intercourse, and the deafened everywhere learned all of a

sudden that in union there is not only strength but an invaluable stimulus for the individual.

In 1919, the heads of the Leagues of Boston, Philadelphia, Washington, and Newark met in New York and discussed with representatives of the New York League the desirability of forming an association. A constitution and by laws were adopted and the American Association for the Hard of Hearing was the outcome. Dr. Wendell Phillips of New York City became its first president. At the second meeting, which was held in Boston, 1921, it was decided to change the name to The American Federation of Organizations for the Hard of Hearing, by which title it was known after June, 1922. At the Boston meeting, fifty members were present, representing the bulk of the Federation, which at that time comprised sixty-six individual members and ten constituent bodies. In ten years the membership has increased to twenty-four hundred and there are fifty-seven constituent bodies. The yearly meetings in large cities in different parts of the country have attracted considerable publicity, and have called attention to the needs of the deafened everywhere. When the Federation Conference was held in New York in 1930 more than six hundred delegates registered. They actually represented upwards of seven thousand deafened persons who comprise organizations in all parts of the United States and Canada.

The work of the Federation and its influence grew with the same momentum as its membership. Its conferences were from the first attended by physicians, psychologists, social workers, and teachers, as well as

the hard of hearing themselves. From 1919 until 1923, the business of the Federation was carried on entirely by volunteer workers, and its offices were in the headquarters of the New York League, Miss Annetta Peck serving as Corresponding Secretary. In 1923, when the Federation moved its headquarters to the Volta Bureau in Washington, Miss Winnifred Washburn (now Mrs. Raymond Mileham), took charge of part of the correspondence. She was succeeded by Miss Betty Wright, who became field secretary in 1924, and in 1925 was appointed Secretary of the Federation.

The activities of the Federation cover a wide field. Some of its purposes are, to

Establish organizations for the hard of hearing

Establish in the public schools lip-reading classes for both adults and children

Encourage hearing tests for school children

Educate employers to realize the efficiency of hard of hearing employees

Investigate hearing aids

Reach the isolated deafened

Cooperate in research into causes of deafness

Encourage preventive measures

Investigate discrimination made against deafened persons by insurance companies.

Through hastening the development of the 4-A audiometer, by means of which the hearing of thousands of school children has been tested in many of the large cities, the Federation has been able to set in motion preventive measures as well as measures of treatment

and education. Special teachers and special classes in lip-reading are making it possible for hard of hearing children to carry on their school work among normal surroundings.

The rapid growth of the Federation has enabled it to fulfill many of the plans made long ago for the Volta Bureau, some of which had to be postponed for lack of funds. These achievements are too manifold to be included under the general head of lip-reading, and yet the organization itself, as the vigorous offspring of the lip-reading schools, has not outgrown its foster parents. The lip-reading which brought these first little groups together and motivated their attempts at rehabilitation, although now only one of the Federation's many purposes, is still a matter of chief concern.

The *Volta Review* published the proceedings of the Federation meetings from the start, and after 1923 carried a monthly bulletin of Federation news. All this new matter and all the articles of interest to adult lip-readers began to swamp the magazine. In 1930 it was divided, and the *Auditory Outlook* became the organ of the Federation while the *Volta Review*, devoted to subject matter relating to the teaching of the deaf, carried the proceedings of the American Association to Promote the Teaching of Speech to the Deaf. Both magazines are edited by Miss Josephine Timberlake, Superintendent of the Volta Bureau.

#### BIBLIOGRAPHY

Peck, Annetta. Organizations for the Hard of Hearing, their History, Purpose and Promotion, Proceedings of the Fourth Annual Federation Conference, 1923.

Phillips, Wendell C. Reminiscences of an Otologist, *Hygeia*, December, 1930.

Wright, Betty C. Ten Years' Growth in the History of the Federation, Read before the Tenth Annual Meeting of the Federation in Cleveland, 1929.



## CHAPTER XX

### LIP-READING FOR THE HARD OF HEARING CHILD

Every school for the deaf has always contained a number of children with partial hearing. In fact, it has been estimated that less than 25 per cent of deaf children are totally deaf, and some have suffered only about 50 per cent of hearing loss. A large proportion of the latter class became deafened after speech habits were formed, but, because they were classified as "deaf," they were also classified as "deaf mutes." An appalling number of them, in the early years of the education of the deaf, were placed in sign-taught classes under teachers who had never learned to speak.

The more advanced of the educators of the deaf recognized the unfairness of this, and as articulation teaching became more widespread they made an effort to aid such pupils, keeping them in oral classes, and attempting with hearing instruments to give them at least part of their instruction through the ear. "The aural system for the semi-deaf" was discussed at the first meetings of articulation teachers. In 1884, Dr. Gillespie of the Nebraska Institute described experiments with hard of hearing children in his school, and one of his conclusions was, "A large majority of the semi-deaf children in our

schools can and ought to be graduated as hard of hearing speaking people instead of deaf-mutes as heretofore."

Other teachers believed the same thing. They accordingly attempted, by means of auricular training and lip-reading, to keep these children in the class of deafened persons with normal or nearly normal speech. But as the children were thrown constantly in the society of sign-users, neither their speech nor their lip-reading had sufficient exercise, and they grew up with the mannerisms of the deaf, and eventually joined that segregated class, "the deaf and dumb." This sort of thing is still going on to some extent today.

Other deafened children did not have quite enough hearing loss to warrant their being sent to schools for the deaf. In many cases, their defect was not even discovered. So they remained in schools for hearing students and struggled along as best they could, unable to hear all that took place in the class room, and consequently having to repeat many grades. An induced sluggishness of mind often occurred in such cases, and some of these hard of hearing children, though possessing normal mentality, were classified as subnormal, or even feeble-minded.

This, too, has been going on for a long time, and its injustice has been recognized without much having been done about it. From 1880 to 1884, Dr. Samuel Sexton, Aural Surgeon of the New York Eye and Ear Infirmary, testing the hearing of school children, found 371 in the public schools of New York City, all with severe

hearing defects. He read a paper before the International Congress of Educators in New Orleans in 1885, in which he urged that greater efforts be made to classify hard of hearing children in the public schools, with the idea of giving them special instruction.

The article was printed in the *American Annals of the Deaf* in 1887, with the editorial comment:

“Though it relates more to the partly deaf children in the public schools than to those in our special schools, it contains much with respect to the causes of deafness of interest to us all; and we hope one effect of its publication in the *Annals* will be to interest our readers in the education of the deaf children in common schools (whose number is much larger than is supposed, and whose condition in some respects is more unhappy than that of our own pupils) and lead them to exert an influence in their behalf.”

That was forty-five years ago. From time to time, hearing tests of school children were made in the larger cities. Tests made in Chicago in 1899 revealed that  $15\frac{1}{4}$  per cent of the children who entered grade work at the age of six had defective hearing. Providence, R. I., after a general survey, found the astonishing number of 2,365 deafened out of 22,618 examined. Dr. Max Goldstein, speaking on “The Physician and the Deaf Child,” in 1910, said that in the records thus far gathered it was found that 20 per cent of the school children in the United States had impaired hearing.

Some of the children discovered in these tests were given medical treatment. The rest merely helped to pile up unheeded statistics. The majority went on half-

heartedly through their classes, acquiring inferiority complexes and being designated "slow," "stupid," "problem cases," and "repeaters." No efficient champion of their cause arose until the twentieth century was well advanced.

About 1910 Dr. Franklin Bock was placed in charge of the newly opened ear, nose and throat clinic in one of the public schools of Rochester, N. Y. In the course of his work he tested the hearing of thousands of children, and while he found a large proportion of them deafened, it was his belief that, with proper instruction, they could be educated in schools for hearing children. He extended the clinical work into the educational department, and made an effort to reach the teachers of deafened children and inform them of the importance of giving these children special attention.

In 1916, the experiment was tried of giving the deafened pupils instruction in lip-reading. Miss Alice Howe, (now Mrs. O. P. Hatton), who had been teaching lip-reading to adults and correcting children's speech defects in Rochester and Buffalo, learned of Dr. Bock's work, and offered to start a lip-reading class in the same school as that in which the ear clinic was situated. She began in May, 1916, with five pupils, taking them for several half hour periods each week. It was found that this lip-reading instruction was beneficial. By Thanksgiving of the same year, Miss Howe was giving simple demonstrations to some of the regular grade teachers to show the children's progress.

About the same time, Miss Caroline Kimball began to pioneer along these lines in Lynn, Mass. Miss Kimball,

a public school teacher, had become hard of hearing and had taken Miss Bruhn's normal course in lip-reading. She returned to her home in Lynn determined to do something for hard of hearing children, and obtained permission to experiment with a lip-reading class in one of the schools. It was started near the end of the school year in May, 1918, and was regarded as a test of the feasibility of lip-reading. Eight pupils were given lessons in two classes which met on alternate days. One backward pupil received private instruction.

Before the close of the school year some of the students testified voluntarily that since taking lessons in lip-reading they were able to understand directions which they could not get previously, especially when the teacher stood on the opposite side of the room. One boy announced that his mother said his hearing was improving, but he added: "It isn't. I just watch her when she is talking."

The work was continued in the fall, no longer as an experiment, but as a regular part of the school program. A canvass was made of all the schools in the city to find out how many pupils had imperfect hearing and might be benefited by the study of lip-reading. After some delay classes were organized, and work was begun with fifty-four pupils in five different schools.

Classes were so arranged that each child had the benefit of three half-hour periods of instruction and practice weekly. Miss Kimball taught full time, two sessions daily, and so was able in many cases to give individual instruction and extra assistance in school work. It was found that these lessons helped the deafened children in

many ways. They acquired habits of concentration. They paid better attention in the class room because they had learned to watch a speaker's lips. They got more of what their teachers said. The teachers, becoming aware of the difficulties of the deafened children, made more of an effort to help them understand.

When the American Association of the Hard of Hearing met for its first conference in Boston in 1921, both Miss Kimball and Dr. Bock appeared on the program and told of their experiences with the hard of hearing child. The importance of instruction in lip-reading was emphasized in the discussion which followed.

At the second conference in Toledo in 1922, the hard of hearing child occupied an even larger place on the program. Dr. Norval Pierce and Dr. John Theobald read a report on the conditions of hearing in an average public school in Chicago. Miss Emma Knox and Miss Alice Howe explained the educational needs of the deafened child. Miss Estelle Samuelson spoke of the tragedies which social workers encountered in following up individual cases of hard of hearing children. At the end of the discussion, Miss Josephine Timberlake, Superintendent of the Volta Bureau, exclaimed,

"Let's go home and *do* something!"

The deafened adult had emerged definitely from pre-occupation with his own problems. This was demonstrated the following year, when the Federation met in Chicago. The reports from several leagues: Toledo, Rochester, Pittsburgh, spoke of special efforts in behalf of hard of hearing children. Miss Florence Spof-



ford announced that members of the Washington League had induced the Washington School Board to undertake a survey through which it was found that there were 1,400 hard of hearing children in the elementary schools of that city. Dr. Wendell Phillips, speaking for the New York League, reported that the League had established its own clinic and was giving medical examinations, free lip-reading instruction, and speech correction to deafened children. He also stated that the Brooklyn Teachers' Association had petitioned the Board of Superintendents to introduce lip-reading into the Brooklyn public schools.

All these efforts, however, were sporadic, and were only in a limited degree productive of results, because no simple and feasible means had as yet been devised by which the hearing of a large number of children could be tested in a short time.

The Federation appointed, in 1924, a Committee on the Survey of Hard of Hearing Children, with Mrs. James F. Norris as Chairman. The committee met in the fall of 1924, and through the efforts of Miss Florence Spofford, made contact with the United States Bureau of Education. In 1925, a report was made to Dr. Wendell C. Phillips, Chairman of the Scientific Committee of the Federation, urging the matter of adequate hearing tests. Dr. Phillips referred this to Harvey Fletcher, Ph. D., Chairman of the Research Committee. Dr. Fletcher asked permission of the Bell Telephone Laboratories to use their facilities in an effort to devise a means of testing hearing which could be used not only with individuals, as heretofore, but with a con-

siderable group. With the cooperation of Dr. Edmund P. Fowler, the 4A phono-audiometer was developed.

This revolutionized the whole matter of discovering and aiding the hard of hearing child. The 4A audiometer enables one person to test the hearing of a large number of children in a short time. The instrument consists of a spring-driven turntable like that of an ordinary phonograph, an electromagnetic reproducer, and a group of telephone receivers. Each child is given a sheet of paper and is told what he is expected to do. The receivers are adjusted, the phonograph is started, and the children hear the words, "You are going to have your hearing tested. Write the numbers which you hear in column one." Numbers are spoken, the loudness with which each set of figures is given being less than that of the preceding set. The test is given twice by a woman's voice and then twice by a man's voice. By this means it is possible to test from 75 to 150 children in an hour. Those who apparently fail to pass the test are given a second test later, and from those who fail a second time are selected the ones to receive medical examination. This leads the way to lip-reading instruction in such cases as it is found advisable.

With this apparatus available, hearing tests for school children were speeded up enormously. Several cities purchased audiometers almost at once. Dr. Bock demonstrated the instrument at the Federation Conference in Chautauqua in 1927, and members of the Boston Speech Readers Guild decided to purchase one. Miss Caroline Olin began making demonstration tests in Boston and its suburbs, and also in Martha's Vineyard

and Nantucket. As a result, Massachusetts soon owned more audiometers than any other state.

Lip-reading instruction, though it did not quite keep pace with the need for it as revealed by the audiometer tests, was introduced much more widely. There are now, in 1931, 163 cities giving these tests, and more than half of this number have provided lip-reading instruction for the deafened children in the public schools. Usually, as there are only a few children with defective hearing in each school, an itinerant teacher goes from school to school, and the children come to her in a special room for half hour periods two or three times a week.

In the cities where this plan has been tried for a few years, it has already proved of great value. The lip-reading teacher is able to help these deafened boys and girls in a number of ways. Where she is not too overburdened with work, she is able to give the more backward children individual instruction, assisting them in their studies, and giving them private lessons in lip-reading. In the majority of cases after a few months of lip-reading practice, the children attain a higher standing in their classes. Some of these teachers make a point of getting in touch with the grade teachers to follow up the results of the lip-reading work, and also visit the homes of their pupils and instruct their families as to the best means of helping them.

In some cities, Baltimore, for instance, this work is carried even farther. Here a special class, called the "conservation of hearing class," is provided for children who do not succeed in keeping up with their regu-

lar classes even with the help of lip-reading, but who still have too much hearing to be sent to a school for the deaf. They receive part of their instruction in this room through ear-phones, but go to their regular grade teachers for some of their recitations. They have lip-reading every day, and individual care in speech correction. In a class such as this boys and girls who have been considered feeble-minded prove capable of doing regular grade work.

Through giving lip-reading instruction in the public schools, a considerable saving to the community is brought about. Every child who repeats a grade adds that much to educational expense. To name a few examples, in the latter part of 1927, Miss Ena Macnutt tested 2,000 school children in Boston. She found 165 cases of deafness. The retardation of these children—that is, the number of school years they had repeated because of backwardness in class due to their deafness, amounted to 156 years, which had cost the community \$12,324. Similar figures were offered in the report of the Commission on Hard of Hearing Children appointed by the Federation. In one group of 349 hard of hearing children, 211 repeated a grade 441 times, at a cost of \$60 each time—total, \$26,460.

Lip-reading is instrumental in decreasing the number of repeaters. At the same time, it enables the hard of hearing child to remain in the regular grade school, and he is thus educated at less expense than would be the case if a special school were provided for him. He is also growing up in a normal environment.

According to incomplete figures compiled by the Federation in 1931, seventy-nine cities are now offering lip-reading instruction to three thousand children. The numbers under instruction in various cities range from 325 in Rochester, N. Y., to one in Stevens Point, Wisconsin. In one city, two teachers are able to instruct 250 children in 32 schools.

The work, so far as it has gone at this date, is merely scratching the surface. The American Medical Association has offered the rough estimate that there are 3,000,000 hard of hearing children in the public schools today. All of these children need medical attention, and a considerable proportion, probably not less than 300,000, should also have lip-reading instruction.

In many cases, lip-reading is the most important help that can be given. It relieves much of the nerve strain incident upon continual efforts to hear. It gives the child self-confidence, makes him more alert and attentive, and puts him more nearly on a level with his hearing fellows. Children learn lip-reading much more easily than adults learn it, and where the deafness is progressive, the child is provided with a remarkably efficient help in overcoming the consequences of his increasing handicap. With good lip-reading ability he is able to go much farther in the world than he would be able to go without it.

### BIBLIOGRAPHY

- American Federation of Organizations for the Hard of Hearing, Proceedings of Annual Conferences, 1921-1930.
- Bock, Franklin W. The Next Step in the Conservation of the Race, *American Medicine*, November, 1918.

- Bock, Franklin W. The Examination and Care of Hard of Hearing School Children, *Federation Proceedings*, June, 1921.
- Bock, Franklin W. Mark's Problem, *Volta Review*, April, 1919.
- Bock, Franklin W. Guarding the Portals of Entry, *New York Medical Journal*, February, 1917.
- Bock, Franklin W. The Medical Care of Children, *American Medicine*, July, 1916.
- Fletcher, Harvey. Measuring Children's Hearing, *Bell Laboratories Record*, June, 1926.
- Goldstein, Max. Disposal of the Deaf After School Age, *Volta Review*, February, 1913.
- Goldstein, Max. The Physician and the Deaf Child, *Volta Review*, August, 1910.
- Hays, Harold. The Care of the Deafened Child, *Volta Review*, November, 1928.
- Kimball, Caroline F. The Organization and Teaching of Lip-reading in the Public Schools of Lynn, *Proceedings of the Federation*, June, 1921.
- Kimball, Caroline F. Pioneering, *Volta Review*, August, 1920.
- Leighton, Etta V. The Hard of Hearing Child in the Public School, *Volta Review*, February, 1913.
- Norris, Anne C. Reports of the Committee on the Survey of Hard of Hearing Children, 1926, 1927, 1929, presented at Conferences of the Federation.
- A Symposium on the Hard of Hearing Child, *Auditory Outlook*, July, 1930.
- Making the World a Better Place for the Hard of Hearing, *Volta Review*, May, 1928.
- Palen, Imogen. The Grade Teacher and the Deafened Child, *Volta Review*, September, 1926.
- Peck, Annetta W., Estelle Samuelson and Ann Lehman. Ears and the Man, 1926.
- Report of Third Convention of Articulation Teachers of the Deaf, New York City, June, 1884, pp. 46-59.
- Rochester Times Union, March 18, 1919. Instruction in Lip-reading Keeping Children from Isolation of Lost Hearing, Reprinted in *Volta Review*, April, 1919.
- Samuelson, Estelle. The Deafened Child Problem as We See It, *Volta Review*, December, 1924.



Sexton, Samuel. On the Classification of Deaf Pupils with a View to Improve the Facilities for their Education, *American Annals of the Deaf*, 1887, Vol. XXXII, pp. 148-156.

Stowell, Samuelson, Lehman. Lip-reading for the Deafened Child, Macmillan Co., 1928.

Timberlake, Josephine. The Deaf Child and the Hard of Hearing Child, Address presented before the National Conference of Social Work, Washington, D. C., May 22, 1923, *Volta Review*, September, 1923.

Waldman, Wade, Aretz. Hearing and the School Child, Published by the Volta Bureau, 1931.

Whildin, Olive A. and M. Agatha Scally. The Newer Method in Speech-reading for the Hard of Hearing Child.

## CHAPTER XXI

### CONCLUSION

Lip-reading has advanced to a position of greater dignity than it held a few years ago. Courses of instruction to prepare teachers of lip-reading are offered now by several of the larger colleges and universities: notably, Columbia, Johns Hopkins, the University of Rochester, the University of California, and the Michigan State Normal College. It is a recognized part of many public school systems. It is treated respectfully by boards of education, otologists, social workers, and associations of parents and of teachers. The National Education Association has established a Department of Lip-reading and papers on the hard of hearing child are regularly presented at its meetings. The United States Bureau of Education has reprinted among its School Health Studies one of the Federation reports on the Hard of Hearing Child. The National Research Council has given large space to deafness in its conference reports, and has a permanent committee on the subject.

Groups of deafened persons who meet to practice speech-reading are established in many cities. Their affairs are chronicled in the news sections and society

columns of countless newspapers. Lip-reading tournaments are Associated Press news, and appear on front pages of metropolitan dailies. The Federation Conferences have been featured in nation wide reports.

This is of great benefit to the hard of hearing everywhere. The better they are advertised, and the more their handicaps are understood, the more easily they will get along in the world. So far as lip-reading is concerned, however, there is some slight danger that the comprehension of its possibilities will not keep pace with the growth of opportunities for instruction. Lip-reading is being placed in the evening schools on the same level as language instruction, with the idea that one teacher can handle large groups of individuals as she could were she teaching French or German. This class practice is undoubtedly beneficial, because it stimulates and encourages the pupils, but with twenty or thirty pupils of all grades of ability in one class, a teacher cannot achieve the results she would be able to show if she taught only three or four at a time, with opportunity to give each one the concentrated practice which most adults require in order to become adept in lip-reading. This is one of the difficulties that will have to be adjusted as knowledge of the subtle art increases.

With the great improvements that have been made in group hearing aids during the past few years, hard of hearing persons are able to enjoy many things that have been denied them—church, theatre, opera, lectures—but lip-reading has a large share in helping them retain their place in society. It offers a good stout crutch that

will not be discarded so long as there is deafness on the earth.

It has its inevitable limitations. It is far from being perfect. It does not put the deafened on a level with those who hear. It does not enable its most ardent practitioner to understand sermons, lectures, the theatre, or talking pictures. It does not make general conversation a glorious pastime for the hard of hearing person. But it puts him in touch with his world as does nothing else. A very little facility is a definite gain, and a large facility is invaluable.

With lip-reading, one who cannot hear the conversational tones of the voice is equipped to confront the small daily contacts that, without lip-reading, are intolerable. Taxi-drivers, ticket-agents, porters, conductors, servants, clerks, traffic policemen cease to be formidable menaces and fall into their natural places in the scheme of things, because lip-reading enables a hard of hearing person to know at least a part of what they say.

The deafened person is not deaf with his own family or his intimate friends, for with increased ability to read the lips he learns to understand most of them, and talks to them without strain. That alone makes it worth a great effort to achieve.

Most important of all, lip-reading gives the deafened person greater self-confidence in the economic world. It enables him to hold his own in the average business contacts. He will not be able to sit in an office reception room and interview strangers, but, given a chance to grow slightly accustomed to those with whom he works,

he will understand directions, commands and casual remarks so easily that his deafness will not handicap either himself or his co-workers.

It was lip-reading that, in the first place, brought the deafened together in the small groups which developed so quickly into nation wide conferences. Lip-reading started the Federation, and the Federation has enabled the deafened to do what no other class of handicapped persons has ever done, band together to achieve their own social rehabilitation.

Where individuals are concerned, little things loom much larger than big ones. A father once wrote to a magazine to say that lip-reading was precious to him because it enabled him to understand his little three year old daughter when she said, "Will you play croquet with me?" A deafened woman, watching army planes manoeuvre, happened to smile at a stranger beside her.

"Wonderful sight!" said he, companionably.

"Marvelous," said she, and was strangely comforted because it was not necessary for her to inform him she was hard of hearing.

To those who hear, such small exchanges are as much a part of every day as the air they breathe, and as little noticed. Yet they are almost as necessary as air in the miscellaneous contact of man with man which makes up a large portion of human life. Their gradual return, by means of lip-reading, is a vital gain. They are within reach of anyone who seriously studies the art for even a short period of time.

As for the larger benefits which accrue after steady use of lip-reading over a period of years, they could scarcely be described without fear of exaggeration. Everyone who has had much contact with the hard of hearing knows deafened persons who are able to an extraordinary degree to hold their own in all manner of business and social contact. They have made lip-reading so much a part of themselves that they are able to read the speech of many individuals as easily as they read print. They frequently stumble with strangers and with those of their friends who have immobile faces, but success so far outbalances failure that failure is easily forgotten. These persons have experienced the growing contentment which keeps pace with growing ability to read the lips. They know that, as one of their number has remarked, "Lip-reading is a straw at which a drowning man grasps, but he finds that it turns into a life preserver."











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